Respectful Maternity Care
Dissemination and Implementation of Perinatal Safety Culture To Improve Equitable Maternal Healthcare Delivery and Outcomes
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Dissemination and Implementation of Perinatal Safety Culture To Improve Equitable Maternal Healthcare Delivery and Outcomes

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#1: Minor errors were called to our attention regarding three publications by Afulani et al.: a 2017 publication (report primary citation no. 111), a 2019 publication (report primary citation no. 113, appendix citation no. 34), and one from a 2022 publication (report primary citation no. 114). These publications evaluated three different versions of the Patient-Centered Maternity Care (PCMC) tool. We have updated the main text of the report and appendix tables.

In the body of the report, the results section, the Afulani 2019 study PCMC-13 (citation no. 113, appendix citation no. 34) was miscategorized as poor quality. This has been corrected in the text, (section 3.3.2), to read: “Ten tools (in 21 studies) were considered to have adequate (fair or good) overall quality; overall quality was considered inadequate (poor) for two instruments (2 studies) and one version of an instrument validated by other studies with better quality.” The PCMC tool overall was rated as “fair” and the adjustment to the ROB for the PCMC-13 does not change overall assessment of the tool, as all other studies cited for this tool were evaluated as fair quality. None of these corrections impacted the overall assessment of this tool in the report.

On page 39, section 3.3.3.2.2.2, the Afulani 2022 study (citation no. 114) was erroneously labeled PCMC-32 instead of the PCMC-35 tool. The text has been corrected to read “35-item scale.” The scale is correctly labeled in appendix C-2 and refers to the same study (appendix citation no. 31).

Appendix table C-2: Cronbach alpha values that were erroneously reported as “NR” have been replaced with the correct values for the Afulani 2022 (appendix citation no. 31) PCMC-35 tool in the last column. This does not change the overall ROB.

Appendix Table D-1 has been corrected to read PCMC-35, for Afulani 2022 (appendix citation no. 31).

The Quality Assessment table D-1 for Afulani 2019 (appendix citation no. 34) column on enrollment has been corrected as “unclear” not NR; and “yes” for internal consistency, not NR. To be consistent with similar ratings, the PCMC-13 ROB rating is now “fair” quality, not poor quality. This is consistent with the other PCMC tools. The overall quality of the PCMC tool remains as “fair” and is correctly cited in Table 4B. Correcting these errors in the table does not change any conclusions or the main presentation of the results in the review.

Citations for Afulani 2017 (appendix citation no. 32) have been corrected where erroneously labeled 2016 in the Appendix, Table C-2.

#2: Table 4b: The PCMC column on documentation has been corrected to read: “Fair-quality documentation, (4 studies; 13, 27, 30, and 35 item scales) addressing: content validity, construct validity, internal consistency; Cronbach’s α >0.70 in 4 settings.” This is consistent with corrections to the text.

Table 5 had many check marks that were inadvertently deleted. These corrections do not change the overall report findings. This table has been replaced with a new version in the report and is shown below. Erroneous check marks were removed and correct check marks were placed in the correct cells. All check marks were reconciled/corrected to reflect the appropriate reporting of categories in each of the validated tools to ensure accuracy of the table. Correcting these errors in the table does not change any conclusions or the main presentation of the results in the review.
Table 5. Summary of respectful maternity care themes and components in validated tools

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<th>Theme</th>
<th>Components</th>
<th>CHOICES</th>
<th>DAQ</th>
<th>MOR</th>
<th>MADM</th>
<th>RMC Scale(s)</th>
<th>23i-RMC</th>
<th>QRMCQ19</th>
<th>WPRMC26</th>
<th>CEQ-2</th>
<th>MCPC</th>
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<th>PREM-OB18</th>
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<td>Free from harm or mistreatment</td>
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<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<td>✓</td>
</tr>
<tr>
<td></td>
<td>Free from bias and discrimination</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td></td>
<td>Detention in facilities</td>
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<tr>
<td></td>
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<td>Privacy/confidentiality</td>
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Abbreviations: CEQ-2 = Revised Childbirth Experience Questionnaire; CHOICES = Childbirth Options, Information, and Person-Centered Explanation; DAQ = Disrespect and Abuse Questionnaire; MADM = Mothers Autonomy in Decision Making scale; MCPC = Mother-Centered Prenatal Care scale; MOR = Mothers on Respect Index; PCMC = person-centered maternity care; PREM-OB18 = Patient-reported Experience Measure of Obstetric Racism; RMC = respectful maternity care; QRMCQ19 = Quality of RMC Questionnaire in Iran; WPRMC = Women’s Perception-RMC
This report is based on research conducted by the Pacific Northwest Evidence-based Practice Center (EPC) under contract to the Agency for Healthcare Research and Quality (AHRQ), Rockville, MD (Contract No. 75Q80120D00006). The findings and conclusions in this document are those of the authors, who are responsible for its contents; the findings and conclusions do not necessarily represent the views of AHRQ. Therefore, no statement in this report should be construed as an official position of AHRQ or of the U.S. Department of Health and Human Services.

None of the investigators have any affiliations or financial involvement that conflicts with the material presented in this report.

The information in this report is intended to help healthcare decision makers—patients and clinicians, health system leaders, and policymakers, among others—make well-informed decisions and thereby improve the quality of healthcare services. This report is not intended to be a substitute for the application of clinical judgment. Anyone who makes decisions concerning the provision of clinical care should consider this report in the same way as any medical reference and in conjunction with all other pertinent information, i.e., in the context of available resources and circumstances presented by individual patients.

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A representative from AHRQ served as a Contracting Officer’s Representative and reviewed the contract deliverables for adherence to contract requirements and quality. AHRQ did not directly participate in the literature search, determination of study eligibility criteria, data analysis, interpretation of data, or preparation or drafting of this report.

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Preface

The Agency for Healthcare Research and Quality (AHRQ), through its Evidence-based Practice Centers (EPCs), sponsors the development of systematic reviews to assist public- and private-sector organizations in their efforts to improve the quality of healthcare in the United States. These reviews provide comprehensive, science-based information on common, costly medical conditions, and new healthcare technologies and strategies.

Systematic reviews are the building blocks underlying evidence-based practice; they focus attention on the strength and limits of evidence from research studies about the effectiveness and safety of a clinical intervention. In the context of developing recommendations for practice, systematic reviews can help clarify whether assertions about the value of the intervention are based on strong evidence from clinical studies. For more information about AHRQ EPC systematic reviews, see https://effectivehealthcare.ahrq.gov/about/epc/evidence-synthesis.

AHRQ expects that these systematic reviews will be helpful to health plans, providers, purchasers, government programs, and the healthcare system as a whole. Transparency and stakeholder input are essential to the Effective Health Care Program. Please visit the website (www.effectivehealthcare.ahrq.gov) to see draft research questions and reports or to join an email list to learn about new program products and opportunities for input.

If you have comments on this systematic review, they may be sent by mail to the Task Order Officer named below at: Agency for Healthcare Research and Quality, 5600 Fishers Lane, Rockville, MD 20857, or by email to epc@ahrq.hhs.gov.

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Acknowledgments

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Key Informants

In designing the study questions, the EPC consulted several Key Informants who represent the end-users of research. The EPC sought the Key Informant input on the priority areas for research and synthesis. Key Informants are not involved in the analysis of the evidence or the writing of the report. Therefore, in the end, study questions, design, methodological approaches, and/or conclusions do not necessarily represent the views of individual Key Informants.

Key Informants must disclose any financial conflicts of interest greater than $5,000 and any other relevant business or professional conflicts of interest. Because of their role as end-users, individuals with potential conflicts may be retained. The Task Order Officer and the EPC work to balance, manage, or mitigate any conflicts of interest.

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Technical Expert Panel

In designing the study questions and methodology at the outset of this report, the EPC consulted several technical and content experts. Broad expertise and perspectives were sought. Divergent and conflicted opinions are common and perceived as healthy scientific discourse that results in a thoughtful, relevant systematic review. Therefore, in the end, study questions, design, methodologic approaches, and/or conclusions do not necessarily represent the views of individual technical and content experts.

Technical Experts must disclose any financial conflicts of interest greater than $5,000 and any other relevant business or professional conflicts of interest. Because of their unique clinical or content expertise, individuals with potential conflicts may be retained. The Task Order Officer and the EPC work to balance, manage, or mitigate any potential conflicts of interest identified.

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†Provided input on the Draft Report.

Peer Reviewers

Prior to publication of the final evidence report, EPCs sought input from independent Peer Reviewers without financial conflicts of interest. However, the conclusions and synthesis of the scientific literature presented in this report do not necessarily represent the views of individual reviewers. AHRQ may also seek comments from other Federal agencies when appropriate.
Peer Reviewers must disclose any financial conflicts of interest greater than $5,000 and any other relevant business or professional conflicts of interest. Because of their unique clinical or content expertise, individuals with potential nonfinancial conflicts may be retained. The Task Order Officer and the EPC work to balance, manage, or mitigate any potential nonfinancial conflicts of interest identified.

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Respectful Maternity Care
Dissemination and Implementation of Perinatal Safety Culture To Improve Equitable Maternal Healthcare Delivery and Outcomes

Structured Abstract

Objective. To summarize current research defining and measuring respectful maternity care (RMC) and evaluate the effectiveness of RMC and implementation strategies to improve health outcomes, particularly for populations at risk for health disparities.

Data sources. Ovid MEDLINE®, Embase®, and Cochrane CENTRAL from inception to November 2022 and SocINDEX to July 2023; manual review of reference lists and responses to a Federal Register Notice.

Review methods. Dual review of eligible abstracts and full-text articles using predefined criteria. Data abstraction and quality assessment dual reviewed using established methods. Systematic evaluation of psychometric studies of RMC tools using adapted criteria. Meta-analysis not conducted due to heterogeneity of studies and limited data.

Results. Searches identified 4,043 unique records. Thirty-seven studies were included across all questions, including the Contextual Question (CQ). Twenty-four validation studies (3 observational studies, 21 cross-sectional studies) evaluated 12 tools for measuring RMC. One randomized controlled trial (RCT) evaluated RMC effectiveness. There were no effectiveness trials from settings relevant to clinical practice in the United States and no studies evaluating effectiveness of RMC implementation. For the CQ, 12 studies defined 12 RMC frameworks. Two types of frameworks defined RMC: (1) Disrespect and Abuse (D&A) and (2) Rights-Based. Components of D&A frameworks served as indicators for recognizing mistreatment during childbirth, while Rights-Based frameworks incorporated aspects of reproductive justice, human rights, and anti-racism. Overlapping themes from RMC frameworks included: freedom from abuse, consent, privacy, dignity, communication, safety, and justice. Tools that measured RMC performed well based on psychometric measures, but no single tool stood out as the best measure of RMC. The intrapartum version of the Mother’s Autonomy in Decision-Making (MADM), Mothers On Respect index (MORi), and the Childbirth Options, Information, and Person-Centered Explanation (CHOICES) index for measuring RMC demonstrated good overall validity based on analysis of psychometric properties and were applicable to U.S. populations. The Revised Childbirth Experience Questionnaire (CEQ-2) demonstrated good overall validity for measuring childbirth experiences and included RMC components. One fair-quality RCT from Iran demonstrated lower rates of postpartum depression at 6-8 weeks for those who received RMC compared with controls (20% [11/55] vs. 50% [27/54], p=0.001), measured by the Edinburgh Postpartum Depression Scale. No studies evaluated any other health outcomes or measured the effectiveness of RMC implementation strategies.

Conclusions. RMC frameworks with overlapping components, themes, and definitions were well described in the literature, but consensus around one operational definition is needed. Validated tools to measure RMC performed well based on psychometric measures but have been
subject to limited evaluation. A reliable metric informed by a standard definition could lead to further evaluation and implementation in U.S. settings. Evidence is currently lacking on the effectiveness of strategies to implement RMC to improve any maternal or infant health outcome.
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Executive Summary

Main Points

- Respectful maternity care (RMC) is a well-described, rational approach for improving person-centered and equitable intrapartum and postpartum care, but it lacks a standard definition, clear measurement method, or evidence of effectiveness.
- Two types of RMC frameworks described in the literature based on either (1) Disrespect and Abuse or (2) Rights-Based, have overlapping themes with components that reflect efforts to implement metrics to eliminate practices identified as disrespect or abuse, and initiatives to work toward healthcare systems and settings that focus on respectful care. Common themes include: freedom from abuse, consent, privacy, dignity, communication, safety, and justice.
- Based on analyses of psychometric properties presented in 24 validation studies, 10 tools were considered to have fair or good overall validity and two tools had poor overall validity.
- RMC tools have not been subject to widespread testing and no single validated tool stands out as the best measure of RMC. However, the intrapartum version of the Mother’s Autonomy in Decision-Making (MADM) and Mothers On Respect index (MORi) tools, and the Childbirth Options, Information, and Person-Centered Explanation (CHOICES) index for measuring RMC demonstrate good overall validity and are most relevant to U.S. populations. The Revised Childbirth Experience Questionnaire (CEQ-2) also demonstrated good overall validity for measuring childbirth experiences and includes some RMC components.
- Components of tools identified as having good validity to measure RMC incorporated themes of privacy, dignity, respect, autonomy, and communication or shared decision making. Teamwork and communication (among providers, staff, patients and families) was not specifically described as part of an RMC tool; however, shared decision making was framed as a way to improve communication between patients and providers and may facilitate teamwork and communication.
- One randomized controlled trial from Iran evaluated the effectiveness of an RMC intervention and demonstrated lower rates of postpartum depression for RMC compared with controls (20% vs. 50%, p=0.001).
- No trials from the United States or settings applicable to clinical practice in the United States evaluated the effectiveness of RMC for any health, utilization, or patient reported outcome.
- Alongside the urgent need to implement RMC, goals for RMC must include further testing of reliable performance measures and consensus around a clear definition to help standardize care delivery to ensure RMC for all who are pregnant or postpartum.

Background and Purpose

Severe maternal morbidity and death is worse in the United States than in all comparable countries, with the greatest impact on Black women. Emerging research suggests disrespectful care during childbirth contributes to this problem. This systematic review synthesizes research for defining and measuring RMC and identifying its absence (also described as disrespect or abuse during childbirth). It also examines the effectiveness of strategies for implementing RMC.
on health outcomes, particularly for populations at risk for health disparities. This effort is part of an initiative to improve person-centered and equitable care for birthing people and incorporate pregnant and postpartum individuals and their identified support networks as part of the multidisciplinary care team. This review is intended to be useful to clinicians, patients, and policy makers, and may help inform a clearer understanding of target metrics for evaluation of RMC, including the impact on maternal health outcomes and patient experiences.

**Methods**

This review follows standard methods for systematic reviews\(^1\) based on methods developed by the Agency for Healthcare Research and Quality for effectiveness reviews. The protocol was registered with PROSPERO (CRD394769). Searches were conducted in Ovid MEDLINE\(^\circ\), CINAHL\(^\circ\), Embase\(^\circ\), and Cochrane CENTRAL databases from inception to November 2022 and SocINDEX to July 2023 and were supplemented by manual review of reference lists and a Federal Register Notice. In collaboration with Federal partners, Key Informants, and a Technical Expert Panel, investigators developed pre-established eligibility criteria defined by populations, interventions, comparators, outcomes, and setting (PICOTS). The population included pregnant and postpartum adolescents and adults for all questions using gendered (e.g., women) and nongendered terms (e.g., person, individual). Methods are discussed in detail in the full report and in Appendix A.

**Results**

Searches of electronic databases and reference lists yielded 4,043 references. After dual review of titles and abstracts, 443 papers were selected for full-text review. Thirty-seven studies were included across all Key Questions (KQs), including the Contextual Question (CQ). Twenty-four validation studies (3 observational studies, 21 cross-sectional studies) evaluated 12 tools for measuring RMC, including studies validating tools in other languages. For KQ2, one RCT from Iran evaluated RMC effectiveness on maternal clinical outcomes; there were no effectiveness trials from countries relevant to clinical practice in the United States for any clinical outcome. For KQ3 and 4, there were no studies of RMC effectiveness on infant health outcomes and no studies evaluating the effectiveness of RMC implementation strategies. For the CQ, we identified 12 studies as the original source documents that described 12 frameworks to characterize RMC. Although not formally included as evidence, 77 cross-sectional studies applying the 12 frameworks in specific countries and settings were included in CQ tables; therefore, these studies were not listed as excluded articles. There was no data on harms of RMC, but frameworks identified in the literature clearly defined related concepts of disrespect and abuse.

**Strengths and Limitations**

Many studies included in our review were from cross-sectional surveys from low- and middle-income countries (LMIC) to inform the CQ to describe RMC, or apply various measures of disrespect and abuse or RMC, but were based only on prevalence of women’s experiences. There is not yet a definitive framework or consensus around a definition for RMC. Although no single tool emerged as the best measure of RMC, this report provides evidence on the available validated tools to measure the receipt and delivery of RMC and assessment of those that are most relevant to U.S. populations.
There was a lack of evidence on the effectiveness of RMC on clinical, utilization, or patient reported outcomes. Few studies specifically addressed professional training, or specific procedures or policies to inform strategies around teamwork or communication. Most limitations of the evidence base were related to the lack of relevant studies to evaluate interventions of RMC effectiveness, the relative weakness of study designs used in this field, which were mostly cross-sectional, the rigor with which the studies were conducted, and the incomplete reporting of key outcomes. This review was limited to the intrapartum and postpartum periods, and some of the measures were not specific to this time period only. No studies evaluated the effectiveness of RMC implementation strategies and how implementation affects health outcomes. No studies reported on factors related to health disparities or the potential harms of RMC.

**Future Research Needs and Opportunities**

In the United States, there is an increasing awareness of maternal health disparities and urgent calls for changes in healthcare delivery that improve safety, eliminate racism, and improve health outcomes for all who are pregnant and postpartum. The literature in this review suggested agreement that RMC is a fundamental tenet of obstetric care that should be promoted. This aligns with wider arguments recognizing the inalienable nature of key human rights and freedoms. But unlike many literature review and synthesis topics, the concept of respectful maternity care is still being defined, a critical step towards wider outcomes testing. This report summarizes essential components of RMC based on identified frameworks and highlights useful examples of tools to measure RMC by identifying which tools demonstrate methodologically sound design and validity. This information should serve as a guide to (1) define RMC, (2) determine an appropriate metric, and (3) promote research to evaluate whether widespread implementation improves health outcomes. When literature review and synthesis does not result in strong evidence about how a particular intervention impacts outcomes, it may be common to conclude that standard care should not be challenged or modified. We caution against this conclusion. Instead, we recommend that readers focus on this review’s findings revealing longstanding and multidisciplinary research on the concept of RMC to catalyze wider instrument development and promote careful consideration of future work to define and test the impact of strategies to deliver RMC.

Research is needed to evaluate interventions for promoting RMC not addressed by existing studies, including effectiveness of RMC implementation strategies and how RMC affects health, utilization, or patient reported outcomes. Future effectiveness trials should include patients with diverse backgrounds, including those who are at risk for experiencing discrimination due to socioeconomic factors, rural location, or geographic isolation; and from other groups at risk for experiencing health disparities based on race, ethnicity, disabilities, or trauma. Before widespread implementation of tools to measure RMC, further testing of current measures and a clear definition to help standardize care delivery may help assure RMC for all birthing people. To further operationalize respectful maternity care, qualitative research would help elucidate perspectives of those who are pregnant or postpartum, companions, and healthcare team members on respectful maternity care and its components.

Based on this review’s findings and input from experts, we proposed a clear definition (Box A) to help bridge the gap between RMC conceptual models, theoretical frameworks, and validated measures and to provide a practical paradigm for the delivery and receipt of peripartum care through a rights- and reproductive justice-based framework. This definition incorporates widely accepted frameworks to outline critical components for application of reliable methods to
measure RMC.

Box A. Definition of respectful maternity care

An approach that:

1) Honors the dignity, personhood, autonomy, and preferences of birthing people
2) Prevents disrespect, mistreatment, or abuse toward individuals who are utilizing maternal care services
3) Provides a practical paradigm for the delivery and receipt of peripartum care through a rights- and reproductive justice-based framework
4) Includes standard elements of respectful care:
   • Freedom from abuse and violence
   • Consent
   • Privacy
   • Communication and shared decision making centered around the birthing person
   • Dignity and respect
   • Safety (safe care environment)
   • Justice

Implications and Conclusions

RMC has been described extensively throughout the literature and has become recognized in the obstetric community as a strategy to reduce maternal health disparities, but consensus around a common definition is needed. Our proposed definition incorporates expert input with an extensive evaluation of the literature to include standard elements of respectful care for informing perinatal safety and culture, including: freedom from abuse and violence, consent, privacy, communication and shared decision making, dignity and respect, safety, and justice.

Two types of RMC frameworks have overlapping components and themes that inform the understanding of RMC. Validated tools to measure RMC demonstrated fair to good overall validity, but have been subject to limited evaluation. A reliable metric informed by a standard definition could lead to further evaluation and implementation in U.S. settings. Evidence is currently lacking on the effectiveness of strategies to implement RMC to improve any maternal or infant health outcome.
References


1. Introduction

1.1 Background

Despite sizeable resources invested in maternity care in the United States, severe maternal morbidity and death is worse in the United States than in all comparable countries,\(^1\) with the greatest impact on Black women.\(^5\)\(^6\) Emerging research suggests that one key part of this problem relates to disrespectful care during childbirth. For example, failure to listen or failure to respond to concerns or symptoms of pregnant or birthing people is a key factor associated with an increased risk for severe maternal illness or death.\(^3\) These failures have also been characterized as “dismissal,” proposed as one of three leading racism-related drivers of U.S. maternal mortality that include denial, delay, and dismissal.\(^7\)

From 2018 to 2019, just before the coronavirus disease 2019 (COVID-19) pandemic, maternal mortality rates in the United States increased from 17.4 to 20.1 per 100,000 live births.\(^8\) From 2020 to 2021, rates increased from 23.8 to 32.9 per 100,000 live births,\(^8\)\(^9\)\(^10\) and statistically significant differences in maternal mortality continued for non-Hispanic Black women (69.9 per 100,000 live births) compared to non-Hispanic White women (26.6 per 100,000 live births),\(^8\)\(^10\) with notable disparities also reported for Alaska Native/American Indian populations.\(^5\) Maternal mortality rates have nearly doubled in the United States over the past 20 years,\(^3\)\(^11\) and disparities in maternal mortality rates persist for non-Hispanic Black women, even when controlling for education, income, or socioeconomic characteristics.\(^5\)\(^9\)\(^12\)

Access to high-quality maternal healthcare is associated with reduced maternal and perinatal morbidity and mortality because it can help identify conditions that increase the risk for poor outcomes and facilitate appropriate and timely interventions for prevention or treatment.\(^13\) Although maternity care is currently covered without cost sharing under the Affordable Care Act,\(^14\)\(^15\) inequities persist in the receipt, delivery, and experience of care. Emerging models such as remote monitoring and alternative prenatal care schedules\(^16\)\(^17\) to deliver care may present opportunities to improve access and efficacy, promote collaborative care,\(^18\) optimize patient safety,\(^19\)\(^20\) and improve patient satisfaction to help close the health disparities gap.\(^20\) Integrated care delivery models that promote the use of multidisciplinary teams (e.g., nurses, midwives, doulas,\(^21\) physicians) and care approaches\(^22\)\(^23\) such as telehealth\(^25\) and remote monitoring support a paradigm shift towards reorganizing care to successfully reach populations facing barriers and could address the diversity of contributors to maternal death.\(^3\)

While many factors contribute to maternal health disparities between the United States and other high-resource countries and within the United States, particularly between White compared with Black women, there is increasing attention to the role that respectful maternity care (RMC) may play in shaping these outcomes. Lack of RMC, or disrespectful care, has been identified as part of systems’ failures, leading to worse outcomes among those who are the most vulnerable during childbearing.\(^26\)\(^27\) A large uptick in community (out of hospital) births within many U.S. communities may reflect patients who did not feel safe or respected in hospitals,\(^28\) or chose community birth because their support networks were not permitted in hospitals during the pandemic.\(^29\)\(^30\)\(^31\)\(^32\) Shared decision making,\(^33\)\(^34\) patient autonomy, and patient preferences\(^35\) are central considerations for updated maternity care approaches that are appealing to pregnant individuals and create safe birthing environments.\(^7\) These factors signal the need for careful consideration of respectful care for all childbearing individuals, with particular attention to racial inequity and populations at risk for experiencing discrimination, to inform culturally competent care as well as safe maternity care systems.
1. Introduction

In 2020, the U.S. Department of Health and Human Services (HHS) launched a department-wide effort to improve equity in maternal health and safety outcomes in response to the ongoing recognition of growing maternal health disparities, particularly among groups already at risk. This is detailed in the White House Blueprint on Maternal Safety, which is currently being implemented across HHS.

Defining RMC and its components, understanding fundamental aspects of RMC, and identifying validated tools to measure and implement safe and respectful care is paramount to informing future program goals and addressing these dilemmas. Careful attention to key components of RMC is important during labor and delivery, when women may experience pain or insecurity and are particularly vulnerable to experiences of disrespect or abuse. Quality improvement initiatives such as the Alliance for Innovation in Maternal Health (AIM) program, a cooperative agreement between the American College of Obstetrics and Gynecology and the HHS Health Resources and Services Administration Maternal and Child Health Bureau, can help standardize the implementation of evidence-based practices and train those delivering maternity care to help reduce variations in care and promote effective and respectful delivery of care, while discouraging ineffective, inequitable, unsafe, or potentially harmful interventions or behavior. Since there is currently no single tool to identify or measure RMC, recognizing the origins, definitions, themes, domains, and key principles of RMC may facilitate a clearer understanding of target metrics for evaluation, including the impact on maternal health outcomes and patient experiences.

1.2 Purpose and Scope of the Review

This review synthesizes the current literature through July 2023 to define and measure RMC and the absence of RMC, described as disrespect or abuse, during childbirth. Examine effectiveness of strategies on maternal and infant outcomes, and the effectiveness of strategies to implement RMC in order to improve health outcomes, particularly for populations at risk for experiencing health disparities. This effort is part of a Federal initiative to improve person-centered and equitable care for birthing people and to incorporate pregnant and postpartum individuals and their identified support networks as part of the multidisciplinary care team. This review is intended to be broadly useful to clinicians, patients, and policymakers, and may help inform a clearer understanding of target strategies for implementing RMC and metrics for evaluation of RMC, including the impact on maternal health outcomes and patient experiences. As future perinatal and health equity research evolves, clear identification and measurement of respectful and disrespectful maternity care is essential to advancing knowledge that can improve both maternal and infant outcomes for all.
2. Methods

This Comparative Effectiveness Review follows methods of the Agency for Healthcare Research and Quality (AHRQ) Methods Guide for Effectiveness and Comparative Effectiveness Reviews (hereafter the “AHRQ Methods Guide”). All methods were determined *a priori* and a protocol was developed through a process that included collaboration with Key Informants (KIs), a Technical Expert Panel (TEP), Federal partners, and public input on Key Questions and study eligibility criteria. The protocol was registered on the PROSPERO systematic reviews registry (CRD42023394769) and published on the AHRQ website: https://effectivehealthcare.ahrq.gov/products/respectful-maternity-care/protocol.

2.1 Key Questions

The review is defined by four Key Questions (KQs) that address respectful maternity care (RMC) components, validated tools and measures, and effectiveness, as well as how effectiveness and harms may differ by patient characteristics and nonpatient factors. A Contextual Question (CQ) provides information on how RMC is described in the literature and the context within which RMC can occur. Contextual questions are not reviewed using systematic review methodology (see section 2.3). This review aims to identify RMC definitions or frameworks and critical components of RMC (CQ), examine psychometric properties of tools for measuring RMC (KQ1), and evaluate the effect of RMC on maternal and infant health outcomes (KQs 2 and 3, respectively) and the effectiveness of strategies to implement RMC (KQ4). KQs and the CQ were developed based on the Alliance for Innovation in Maternal Health (AIM) program priorities and input from technical experts, with further feedback and refinement received during a public comment period. While we acknowledge that there are opportunities for the delivery and receipt of both disrespectful and respectful care throughout the prenatal period, this review focuses on RMC during labor and delivery and immediately postpartum in an effort to concentrate on areas for future intrapartum research. The CQ, KQs, and analytic framework (Figure 1) are below.

2.1.1 Contextual Question

**Contextual Question:** How is respectful maternity care during labor and delivery, and the immediate postpartum period defined in the literature? Does the literature define the essential/critical components of respectful maternity care? For example, is teamwork and communication (among providers, staff, patients, and families) an essential element of RMC?

2.1.2 Key Questions

**Key Question 1:** Which components of respectful maternity care have been examined using validated measures? Are there validated tools to measure RMC?

**Key Question 2:** What is the effectiveness of RMC on maternal health and utilization outcomes?
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- How does effectiveness vary among disadvantaged pregnant people?\(^a\)
- Which components of RMC are associated with effectiveness?
- Which (nonpatient) factors are associated with effectiveness?

**Key Question 3:** What is the effectiveness of RMC on infant health outcomes?
- How does effectiveness vary among infants of disadvantaged pregnant people?\(^a\)
- Which components of RMC are associated with effectiveness?
- Which (nonpatient) factors are associated with effectiveness?

**Key Question 4:** What is the effectiveness of strategies to implement RMC?

\(^a\) For KQs 2 and 3, Cochrane’s PROGRESS-Plus framework\(^{11}\) describes disadvantaged pregnant people as those who may experience discrimination due to geography, race/ethnicity, age, disability, language, education, socioeconomic status, etc., or other characteristics associated with disadvantage; we use this term as reported in the framework. In KQs 2 and 3, “nonpatient factors” could be related to setting (type of hospital, rural/urban, staffing ratios) or intervention characteristics.
2. Methods

2.1.3 Analytic Framework

Figure 1. Analytic framework

Abbreviations: CQ = Contextual Question; KQ = Key Question; RMC = respectful maternity care

The analytic framework illustrates how the populations, interventions, and outcomes relate to the KQs and CQ in the review.

Outcomes vary by KQ and are specified in Table 1.

2.2 Literature Search Strategy

For the CQ and KQ1, we conducted electronic searches in Ovid MEDLINE®, Embase®, Cochrane CENTRAL, and SocINDEX through July 13, 2023 (see Appendix A for full strategies and Appendix B for the Preferred Reporting Items for Systematic Reviews and Meta-Analyses [PRISMA] diagram). For KQs 2-4 evaluating the effectiveness of RMC on health and utilization outcomes and the effectiveness of RMC implementation strategies, we followed the same search strategies but searches began in 2013. This decision was guided by the timing of when the AIM program was established in 2014, which changed the policy context in the United States. Also, the use of the term “respectful maternity care” was not cited in the peer-reviewed, indexed literature prior to 2013, and publications prior to that date may not be informative or relevant for evaluating effectiveness. Discussions with the KIs and Federal partners confirmed this decision. For all questions, including the CQ, reference lists of included systematic reviews were screened for additional studies and relevant references were carried forward. A Federal Register notification for a Supplemental Evidence and Data for Systematic review portal was posted from November 8 to December 8, 2022, for submission of unpublished studies; no eligible studies were identified.
2. Methods

2.3 Study Selection

Criteria were established \textit{a priori} to determine eligibility for inclusion and exclusion of abstracts in accordance with the AHRQ Methods Guide. Study eligibility criteria for this Comparative Effectiveness Review were based on the population, intervention, comparisons, outcomes, timing, settings, and study designs of interest (PICOTS) framework and the Key Questions. The population of interest was pregnant and postpartum adolescents and adults admitted for labor through discharge and up to one year postpartum. Since not every individual with childbearing capability identifies as female, we used both gendered (e.g., women) and nongendered terms (e.g., person, individual) to increase inclusivity when referencing the study population. Among the nongendered terms emerging in this scholarship, we use the term \textit{birthing person} to characterize the study population, which includes those who are postpartum, and acknowledge the current linguistic complexity and importance of centering inclusion in this space. We captured effectiveness and harms of RMC based on patient characteristics and nonpatient factors, when available. Details regarding the PICOTS are summarized in Table 1.

Specific outcomes for each effectiveness question (KQs 2-4) considered are described in detail in Appendix Table A-1. A Contextual Question was included to identify definitions and components of RMC described in the literature. All literature that was potentially eligible for KQs 1-4 was also eligible for the CQ, based on studies identified using the same systematic search strategy. We focused on studies identified through the main searches for all questions and supplemented searches with material identified through grey literature searches or suggested by the KIs, TEP, or Federal partners. Descriptive and hypothetical studies were not included. Websites and training modules were not considered in the search. Contextual Questions are not reviewed using systematic review methodology, such as risk of bias assessment or strength of evidence ratings but are used to help inform the report. The Contextual Question was guided by an operational definition of RMC that was crafted with input from the KIs and the TEP. Studies eligible for the CQ defined RMC during labor and delivery and the immediate postpartum period, and described essential components or critical elements of RMC (Tables 2 and 3).

For KQ1 we considered studies of RMC that assessed development, validation and psychometric properties of tools to measure components of RMC based on identified RMC frameworks, including tools that have been implemented and evaluated in clinical settings as reported in the literature. We used the COSMIN (COnsensus-based Standards for the selection of health Measurement Instruments) criteria to facilitate general descriptions of specific aspects of measurement validation and a simplified adaptation of the basic COSMIN principles to evaluate the methodological quality of studies on measurement properties (see risk of bias assessment below, and Appendix A for additional details).

For studies of effectiveness (KQs 2, 3, and 4) we considered comparative studies of strategies to implement RMC and studies that reported the effect of RMC on maternal and infant health outcomes, in addition to outcomes related to utilization. We sought studies evaluating effective delivery and strategies to implement or provide RMC and whether outcomes vary among disadvantaged people, or populations at risk for experiencing discrimination, as defined by the PROGRESS-plus framework, due to geographic location or residence, race/ethnicity/culture, language, disability, age, gender/sex, and others. Patient perspectives, including patient satisfaction, were considered as outcomes, when reported.

Study designs considered for inclusion for KQs were comparative studies of any design, including trials and observational studies. Studies examining components, frameworks, or
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effectiveness of RMC strategies were evaluated for fit to either KQs or CQ. Randomized controlled trials (RCTs) were prioritized for all KQs. Nonrandomized studies of interventions (NRSIs) were also considered for all questions, including harms for KQs 2-4. Qualitative studies that evaluated patient experiences or clinician preferences were considered if they evaluated an RMC tool or intervention. Descriptive studies with no outcome data or studies that included only data from one point in time (cross-sectional) were not included for effectiveness questions (KQs 2 to 4), although they were considered for the CQ and KQ1. We reviewed existing systematic reviews and included their results if appropriate. References lists of systematic reviews were also used to identify relevant studies. Commentaries, letters, conference abstracts and studies of nonhuman subjects were excluded. Inclusion was restricted to English-language articles. Studies had to report original data to be included.

For KQ1 and the CQ, studies from low- or middle-income countries (LMIC) were considered, as these questions did not evaluate effectiveness of RMC and would likely not pose an issue for applicability. Rather, these questions aimed to identify critical components and validated measures of RMC, which would likely be applicable to clinical practice in the United States as well as non-U.S. settings. Country development ratings for considering LMIC were based on data from the Organization for Economic Cooperation\textsuperscript{55} and development and reporting from the United Nations Human Development Index (HDI).\textsuperscript{56} NRSIs from LMIC were not prioritized for questions of effectiveness (KQs 2, 3, and 4) given that RMC approaches and healthcare systems may be very different in other countries. In the absence of trials conducted in countries categorized as “very high” on the HDI, or those relevant to clinical practice in the United States, only RCTs from LMICs were considered for effectiveness questions due to concerns regarding internal validity or risk of bias.

To ensure accuracy, all excluded abstracts were dual reviewed by two investigators. Each full-text article was independently reviewed for eligibility by at least two team members using prespecified inclusion criteria and DistillerSR software version 2.35 (https://www.distillersr.com/). There were very few discrepancies; disagreements were largely centered around whether to include a study as background or formally in the appendix. Rarely, for studies requiring further evaluation, an additional reviewer was consulted to resolve disagreements by discussion and consensus (Appendix A, Study Selection). Investigators tracked results in EndNote version 20.1 (Thomson Reuters, New York, NY). A list of included studies can be found in Appendix B.

Table 1 describes the PICOTS considered for this review.

<table>
<thead>
<tr>
<th>PICOTS</th>
<th>Inclusion and Exclusion Criteria</th>
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</thead>
</table>
| Population | **Include:** CQ, KQ 1-4: Pregnant adolescents and adults admitted for labor through discharge after delivery  
**Additional populations:**  
KQ 2 and 3: Disadvantaged people\textsuperscript{a}  
**Exclude:** Nonpregnant populations |
| Interventions | **Include:** KQ 1: Validated measures of respectful care  
KQ 1-4: Respectful maternity care (any definition)  
KQ 2 and 3: Specific component of RMC  
KQ 4: Implementation strategies for RMC (e.g., patient/provider education, policies, payment, doula/patient advocate, practice facilitation)  
**Exclude:** KQ 1: Nonvalidated RMC measures |
# 2. Methods

<table>
<thead>
<tr>
<th>PICOTS</th>
<th>Inclusion and Exclusion Criteria</th>
</tr>
</thead>
</table>
| Comparators | **Include:** KQ 1: Other tool(s), reference/gold standard or no tool to measure respectful care  
KQ 2-3: Routine maternity care  
Absence of a specific RMC component  
KQ 4: Other implementation strategies for RMC  
**Exclude:** KQ2-4: No comparison |
| Outcomes | **Include:**  
KQ 1:  
- Resepectful care as measured by a validated tool  
KQ 2:  
- Health outcomes for pregnant people  
  - Maternal mortality  
  - Severe maternal morbidity (e.g., cesarean delivery; postpartum hemorrhage; hypertensive diseases of pregnancy; sepsis; embolism; cardiovascular complications)  
  - Mental health symptoms using validated clinical measures (e.g., depression, anxiety, PTSD, suicidality); rates of mental health diagnoses (e.g., depression, anxiety, PTSD; psychological distress as reported on a validated clinical scale)  
  - Function, quality of life, patient satisfaction using validated measures  
  - Harms (e.g., mistreatment; disrespectful care; birth related injury; missed or delayed diagnoses; systems delay in identifying or responding to symptoms)  
- Utilization outcomes for pregnant people  
  - Length of stay  
  - Healthcare utilization post-discharge  
  - Rates of procedures  
KQ 3:  
- Health outcomes for infants  
  - Infant mortality  
  - Infant morbidity (e.g., NICU admission, preterm birth, low birth weight)  
  - Harms (e.g., birth related injuries; missed or delayed diagnosis)  
- Utilization outcomes for infants  
  - Length of stay  
  - Healthcare utilization post-discharge  
KQ 4:  
- RMC provider knowledge and/or practices  
- Rates of procedures and interventions  
**Exclude:** KQ3: Infant health outcomes >1 year |
| Timing | **Include:**  
- Intervention: Admission for labor through discharge after delivery  
- Outcomes: from admission through one year postpartum  
**Exclude:**  
Interventions: before labor, during prenatal care  
Outcomes: More than one year postpartum |
| Settings | CQ, KQ1: All countries in a hospital or birthing facility setting (e.g., birth centers)  
KQs 2-4: hospital or birthing facility in U.S. or U.S.-relevant countries  
**Exclude:** Home births |
| Study designs and publication types | **Include:**  
CQ, KQs 1-4: Trials (randomized and comparative nonrandomized studies of interventions)  
CQ: noncomparative studies  
**Exclude:**  
KQ 1: Studies that do not describe psychometric properties/methods of determining validity of measures or components  
KQs 2-4: Case reports, case series (or similar single-arm designs)  
Publication types: Conference abstracts or proceedings, editorials, letters, white papers, nonpeer-reviewed citations, single site reports of multi-site studies |

Abbreviations: CQ = Contextual Question; KQ = Key Question; NRSI = nonrandomized studies of interventions; NICU = neonatal intensive care unit; PTSD = post-traumatic stress disorder; RMC = respectful maternity care

*“Disadvantaged people” as defined by PROGRESS-plus framework describes populations at risk for experiencing discrimination.*
2. Methods

2.4 Data Abstraction and Data Management

For studies meeting inclusion criteria, evidence tables were constructed with the following data: study design, author, year, setting, country, sample size, patient characteristics, effectiveness-related outcomes, and results relevant to each KQ as outlined in the previous PICOTS section (Appendix C). We also assessed these articles for further usefulness for addressing the CQ. If studies addressed the CQ, we abstracted data characterizing framework definitions and components into tables. All data abstraction was dual reviewed by a second team member.

2.5 Risk of Bias Assessment of Individual Studies

Predefined criteria were used to assess the risk of bias (also referred to as quality or internal validity) for each individual study included, using criteria appropriate for the study design (Appendix A). Controlled trials and NRSIs were assessed using a priori established criteria consistent with the AHRQ-Evidence-based Practice Center (EPC) approach recommended in the chapter “Assessing the Risk of Bias of Individual Studies,” described in the Methods Guide for Effectiveness and Comparative Effectiveness Reviews (Appendix D).58 NRSIs and other observational studies were evaluated using criteria developed by the U.S. Preventive Services Task Force,59 and followed the approach recommended in the AHRQ Methods Guide chapter “Assessing the Risk of Bias of Individual Studies When Comparing Medical Interventions.”50 For RCTs, we focused on randomization, allocation concealment, analysis according to randomized groups (intention-to-treat analysis), and attrition. NRSIs that controlled for potential prognostic variables were included to fill gaps in evidence when RCTs did not sufficiently address the KQs of effectiveness.

For validation studies in KQ1, a simplified method based on general principles of the COSMIN,54 criteria were adapted to evaluate measurement validation and the general methodological quality of individual psychometric studies for RMC tools (Appendixes A and D). Criteria described in foundational publications were used to facilitate descriptions of measurement development and validation and to provide general assessment of RMC tools.60-64

We focused on studies that evaluated content validity, construct validity, and internal consistency to provide a general assessment of RMC tool validation and quality. Assessment included consideration of population sampling to evaluate selection bias. These assessments and documentation of target population characteristics were assessed separately. Maternal and pregnancy characteristics (e.g., age, parity, factors such as diabetes) and birth characteristics (e.g., mode of delivery, use of interventions) were considered important to understanding tool applicability. Content validity evaluates whether the outcomes of interest are comprehensively represented by the questions in the instrument and is a vital aspect of tool development and application.60,61 For this dimension, details on the purpose of the measure, how it was developed (including use of literature search, involvement of experts, stakeholders, and target population), pilot testing and rationale for item selection were considered. Construct validity evaluates whether scores relate to other measures in accordance with specific hypotheses that are theoretically derived.60 Construct validity may include the extent to which a tool and another related measure may have convergent (high correlation if they measure similar concepts) or divergent (low correlation if they measure different concepts) validity with one another. Structural validity is part of construct validity; it assesses the extent to which scores of the tool adequately reflect the dimensions that are being measured. For construct validity, statement and
2. Methods

testing of hypotheses, methods such as factor analysis and how well such statistical models fit
the data (i.e., model fit indices such as root-mean-squared error of approximation or others) were considered. Internal consistency assesses whether the items in the questionnaire evaluate
the same concept or are correlated. As an indication of good internal consistency, Cronbach’s α should range from 0.70 to 0.95 for each subscale. Studies for KQ1 were assigned an overall rating of good, fair, poor based on these primary aspects of tool validation (Tables 4A and 4B, Appendixes A and D).

There are additional criteria that were noted but did not factor into our assessment of overall
risk of bias for studies of tools. We noted whether studies reported test-retest reliability and
whether intraclass correlation coefficient or weighted Kappa coefficient were ≥ 0.70, and any
reported potential for ceiling or floor effects. Criterion validity refers to the extent to which a
tool or instrument correlates to an established, well-defined, high-quality comparator instrument
or “gold standard” measuring the same constructs, conceptually relevant constructs, or
conceptually relevant performance. A gold standard should be an established, well-defined high-
quality comparator or clinical assessment, but there is not a well-defined, high-quality comparator instrument for measuring RMC or maternity care experiences. Therefore, it was not
possible to formulate a specific hypothesis for use in these measurement properties. Studies
reporting criterion validity assessment were noted but assessment of criterion validity did not
contribute to risk of bias assessment. Given that RMC measures have not been used to evaluate
clinical health outcomes, response to treatment, or similar concepts for which a minimally
important change might be considered, we did not look at domains related to responsiveness.

Each included study for all KQs was independently reviewed for risk of bias by at least two
team members. Any disagreements were resolved through consensus. Based on the risk of bias
assessment, included studies were rated as having “low,” “moderate,” or “high” risk of bias.
Studies rated high risk of bias were not excluded a priori, but were considered to be less reliable
than low or moderate risk of bias studies when synthesizing the evidence. A list of excluded
studies may be found in Appendix E, and appendix references in Appendix F.

2.6 Data Analysis and Synthesis

Evidence tables identify study characteristics, results of interest, and risk of bias (ROB)
ratings for all included studies eligible for ROB assessments, and summary tables highlight the
main findings (Appendixes C and D). Studies were reviewed and highlighted using a hierarchy-
of-evidence approach, where the best evidence was the focus of the synthesis for each Key
Question. Since the Key Questions varied in nature and scope, the approach to synthesis also
varied. We analyzed the evidence according to KQ using qualitative (narrative) synthesis. RCTs
were prioritized and studies with lower ROB ratings were given more weight in our synthesis for
each Key Question and eligible outcome.

There were inadequate numbers of included studies to apply methods of quantitative
synthesis (e.g., meta-analyses) for questions of effectiveness. Results for the Contextual
Question were reported descriptively. The main studies included for the CQ were source
documents that define seminal RMC frameworks. Frameworks were organized categorically and
synthesized to inform our definition of RMC (Box 1 in the Discussion section), and included
identification of essential RMC components. This definition was also informed by input from
KIs and the TEP. A catalogue of studies reporting the use of RMC frameworks illustrated
implementation and application in various settings (see Appendix C). For KQ1 studies reporting
validation of RMC measures, results related to tool development and psychometric properties
2. Methods

were summarized across studies grouped by RMC tool when feasible, reported components, and country. Qualitative data are summarized in tables.

There were not sufficient data available for any of the KQs to conduct an additional analysis of RMC effectiveness or implementation by specific population. In addition, outcomes related to health equity, access, and disparities were considered for inclusion but were not reported in any study.

2.7 Grading the Strength of the Body of Evidence

The strength of evidence (SOE) for the body of evidence is usually assessed using the approach described in the AHRQ Methods Guide,\textsuperscript{50} based on study limitations, consistency, directness, precision, and reporting bias. These criteria are applied regardless of whether evidence is synthesized quantitatively or qualitatively but not applied to studies informing the Contextual Question, as these are descriptive. Strength of evidence ratings reflect our confidence or certainty in the findings. Descriptions of criteria and overall grades are described in full in Appendix A.

Given the lack of effectiveness studies and the characteristics of the studies using psychometric measures to assess validated tools, standard methods for grading the strength of the body of evidence were not applicable to all questions in this review.\textsuperscript{54} SOE for KQ1 was not formally assessed as criteria and methods for determining SOE across studies of patient-reported outcomes measures which would be most applicable to RMC measurement tools are not well-defined or standardized. In addition, the substantial heterogeneity in validation methods used in included studies, populations sampled, and tools that were assessed precluded meaningful synthesis that would be needed to formally determine SOE. We considered the general quality of the psychometric studies as described above, the extent to which content validity, construct validity and internal consistency evaluations were documented in the population of interest to this report for a given tool, as well as RMC components contained in the tool and potential applicability to U.S. settings to suggest tool(s) that may be most appropriate for initial testing and implementation to measure RMC.

Formal SOE rating was not done for KQ3 due to insufficient evidence based on the identification of one fair-quality RCT and the inability to assess consistency and precision of findings.

2.8 Assessing Applicability

Applicability (external validity) was considered according to the approach described in the AHRQ Methods Guide.\textsuperscript{50} We used the PICOTS framework to consider the applicability of the evidence base for each Key Question, for example, examining the characteristics of the patient populations (e.g., clinical condition) and study setting to determine how well the identified body of evidence matches these criteria. Information relevant for assessing applicability included the number and diversity of settings or locations as well as characteristics of the population, RMC intervention, or implementation strategy.\textsuperscript{65} Variability in the studies, relevance of included studies to U.S. populations, and heterogeneity in study design or outcomes, may limit the ability to generalize the results to other populations or settings and affect the degree of confidence on how well this evidence base can be applied more broadly.
2. Methods

2.9 Peer Review and Public Commentary

An associate editor from a different EPC reviewed the draft report. Experts were invited to provide external peer review of this systematic review; AHRQ also provided comments. In addition, the draft report was posted on the AHRQ website July 17 to August 21, 2023, for public comment. All comments were reviewed and used to inform revisions to the draft report.
3. Results

3.1 Results of Literature Search

A total of 4,043 references from electronic database searches and reference lists were reviewed. After dual review of titles and abstracts, 443 papers were selected for full-text review, of which 319 articles were excluded. Thirty-seven studies were included across all Key Questions (KQs), including the Contextual Question (CQ) (Figure 2). Twenty-four validation studies (3 observational studies, 21 cross-sectional studies) evaluated 12 tools for measuring respectful maternity care (RMC), including studies validating these tools in other languages. For KQ2, one randomized controlled trial (RCT) from Iran evaluated RMC effectiveness on maternal clinical outcomes; there were no effectiveness trials from countries relevant to clinical practice in the United States for any clinical outcome. For KQs 3 and 4, there were no studies of RMC effectiveness on infant health outcomes and no studies evaluating the effectiveness of RMC implementation strategies. For the Contextual Question, we identified 12 studies as the original source documents describing 12 frameworks to characterize RMC. For the CQ, although not formally included as evidence, 77 cross-sectional studies applying the 12 frameworks in specific countries and settings were included in tables; therefore, these studies are not listed as excluded articles. There was no data on harms of RMC, but frameworks identified in the literature clearly define related concepts of disrespect and abuse.

Results are organized by Key Question and outcome, starting with the CQ to facilitate an understanding of the historical origins of RMC and to characterize how RMC is defined in the literature. We then present results for KQ1 that provide an evaluation of psychometric properties of tools for measuring RMC (KQ1). Results for studies evaluating the effectiveness of RMC on health outcomes (KQs 2 and 3) are followed by an evaluation of strategies to implement RMC (KQ4), organized by Key Question and outcome. Results are summarized below, followed by tables in the accompanying text.

A list of excluded studies with reasons for exclusion are in Appendix E. Data abstraction of study characteristics and results, and quality assessment for all eligible studies are available in Appendixes C and D, respectively.
3. Results

Figure 2. Literature flow diagram

Abstracts of potentially relevant articles identified through Ovid® MEDLINE®, PsycINFO®, Embase®, CINAHL, SociINDEX, and other sources\(^a\) (n=4,043)

- Excluded abstracts (n=3,600)

- Full-text articles reviewed for inclusion (n=443)

- Excluded articles (n=319)
  - Ineligible population: 37
  - Ineligible intervention: 109
  - Ineligible comparator: 3
  - Ineligible outcome: 11
  - Ineligible study design: 25
  - Ineligible publication type: 112
  - Ineligible sample size: 2
  - Systematic review or meta-analysis used only as source document: 10
  - Article or systematic review covered by a more recent systematic review: 1
  - Not English language: 3
  - Ineligible country: 3
  - Background: 3

- Included studies (n=37)\(^b\)

- CQ1: 12 studies\(^c\)
- KQ1: 24 studies\(^d\)
- KQ2: 1 study
- KQ3: 0 studies
- KQ4: 0 studies

Abbreviations: CQ = Contextual Question, KQ = Key Question, RMC = respectful maternity care

\(^a\) Other sources include reference lists of relevant articles, systematic reviews, suggestions from experts.

\(^b\) For the Contextual Question, we identified 77 additional studies that apply RMC frameworks in various countries and settings; although not formally included in the evidence, they are included in our tables, and therefore not listed in the excluded articles section. Four studies included for KQ1 also apply RMC frameworks in various countries and settings.\(^66-69\)

\(^c\) Twelve RMC frameworks are described in 12 source studies.\(^45,70-80\)

\(^d\) For Key Question 1, we identified 14 additional studies that apply RMC tools in various countries and settings; although not formally included in the evidence, they are included in our tables, and therefore not listed in the excluded articles section.
3. Results

3.2 Contextual Question. How is respectful maternity care during labor and delivery, and the immediate postpartum period defined in the literature? Does the literature define the essential/critical components of RMC? Is teamwork and communication (among providers, staff, patients, and families) an essential element of RMC?

This section addresses the CQ and describes how RMC is defined throughout the literature. We used reported definitions and primary frameworks from eligible studies identified in our literature search based on prespecified criteria described in the PICOTS (populations, interventions, comparators, outcomes, settings). The review of definitions and frameworks is not meant to be exhaustive but provides context for how studies frame RMC to evaluate the impact of their interventions across diverse populations. Studies cited in Tables 2 and 3 provide additional references for the application of these frameworks in different countries and settings (see Appendix Table C-4). We recognize there may be additional frameworks or definitions outside this data set and those may be included as measures of RMC in future research.

We identified a large volume of literature with wide variation in RMC frameworks, definitions, and components. Generally, these frameworks shape overarching concepts that may incorporate broad themes and identify the essential or critical components of RMC. Importantly, critique of the included literature suggests the value of considering the historical context influencing prior and contemporary understanding of RMC. These have evolved greatly over the last 100 years and are shaped by widely varying scholarly, clinical, and community standards (e.g., religion, human rights, government, public health, midwifery, ethics, activism, and the law). The way RMC is described in the literature is informed by these historical foundations and the evolution of approaches to seeking RMC. To support a richer appreciation and comprehensive understanding of how RMC frameworks, definitions, and components (i.e., domains) are described in the literature, we created a figure (Figure 3) to briefly outline selected historical events and documents informing the evolution of maternity care to inform RMC, described here.
3. Results

Figure 3. History of respectful maternity care

Abbreviations: 4R = Readiness, Recognition, Response, and Reporting, AIM = Alliance for Innovation on Maternal Health, CUSP = Comprehensive Unit-Based Safety Program, HRSA = Health Resources & Services Administration, MCHB = Maternal and Child Health Bureau, RMC = respectful maternity care, STEPPS = Strategies & Tools to Enhance Performance & Patient Safety, UN = United Nations, WHO = World Health Organization
RMC origins can be traced to the Movement for Humanization of Childbirth in the 1930s.\textsuperscript{44} This movement disrupted longstanding ideas, rooted in traditional biblically grounded thought, that labor pain and suffering are part of a divine plan punishing women for original sin\textsuperscript{81} as outlined in Genesis from the Old Testament.\textsuperscript{44,82} This movement influenced future efforts to reframe labor pain and suffering as biological rather than “divine,” which catalyzed efforts to manage labor via medications and forceps delivery, or essentially “Twilight Sleep.”\textsuperscript{42,81,83} This approach was later criticized as disempowering birthing people, resulting in wider valuation of individual autonomy, new ideas about the causes of labor pain and suffering, and contemporary articulations of longstanding midwifery approaches to care.\textsuperscript{84-86} Collectively, these influences revised understanding of “humanized childbirth,” trumpeting the idea of attending labor and critiquing the idea of managing labor. These transitions coalesced with greater attention to clinical ethics,\textsuperscript{34} application of human rights to women’s lives,\textsuperscript{87-89} emphasis on bodily autonomy (e.g., respecting laboring women’s choice to birth with or without epidural analgesia),\textsuperscript{90} and the (then) emerging concept of “reproductive justice.”\textsuperscript{91} These transitions in understanding of reproductive pain and rights were race and class divided; in the U.S., antebellum physicians initiated and perpetuated false ideas that white, wealthy women were more sensitive to pain than were Black, brown or poor women.\textsuperscript{42,92,93}

Recently, there has been an interest in RMC, particularly within clinical, ethical, human rights, legal,\textsuperscript{94} and anti-racism efforts.\textsuperscript{72} RMC has been more widely studied in low- or middle-income countries (LMICs), with disrespect and abuse frameworks stemming from women’s experiences with mistreatment as more women gave birth in health facilities.\textsuperscript{74} Further characterization of mistreatment through these frameworks gave rise to a concerted effort to examine this initiative within higher resource countries. This contemporary focus uses a reproductive justice approach and considers obstetric violence and obstetric racism, highlighting how both may impact efforts to address persistent disparities in maternal morbidity and mortality in the United States.\textsuperscript{14,95-98}

RMC frameworks, definitions, and components are informed by historical lineage. Tables 2 and 3 outline similarities and differences in the primary components identified in commonly used and cited RMC definitions.\textsuperscript{99} The earlier efforts of Bowser and Hill (2010)\textsuperscript{73} and Bohren, et al. (2015)\textsuperscript{74} include language focused on defining nonrespectful maternity care through the lens of disrespect and abuse (Table 2) and are more frequently considered in LMIC settings, while more contemporary frameworks define respectful maternity care using “rights” and “freedom” terminology (Table 3).

More recently, there has been a shift in focus to include systems questions, responsibilities, and accountability.\textsuperscript{100} For example, while the World Health Organization (WHO) 2014 framework is predominantly centered on the rights and freedoms of the individual birthing person, the Black Mamas Matter 2016 framework\textsuperscript{72} widens this lens to include systems questions through defining the RMC right to maternity care that is safe, protected, universally accessible, and acceptable that is provided by individuals or organizations bearing the responsibility for transparent accountability. In 2018, the updated framework added elements of respectful communication and collaboration.\textsuperscript{79} This shift toward a systems focus may inform broader approaches to RMC, exemplified by the Association of Women’s Health, Obstetric, and Neonatal Nurses (AWHONN) 2022 implementation toolkit and clinical practice guideline.\textsuperscript{71} AWHONN echoes the Black Mamas Matter 2016 framework in describing the need for systems accountability where either individuals or organizations are called to acknowledge and take responsibility for upholding RMC through patient-centered engagement, education, and
3. Results

listening. This widening of the RMC lens from individuals (both individual patients and individual clinicians) to individuals functioning within systems may also be influenced by recent scholarship that importantly reframes longstanding reproductive issues as largely related to structural and social determinants of health, rooted in historical forces. Collectively, this recent work offers critical support for emerging scholarship that examines not just the RMC interaction between the individual patient and provider but also how this interaction is shaped by the health system and society in which intrapartum care occurs.

Twelve studies describe twelve influential and recent RMC frameworks. In examining the literature, 77 additional studies described and/or cited one or more frameworks to identify or apply RMC in various clinical settings. Review of this literature reveals two key approaches to RMC frameworks: (a) Disrespect and Abuse, and (b) Rights-Based. Most reviewed articles operationalize components of RMC through these two approaches. The twelve influential frameworks are described categorically and chronologically below.

3.2.1 Disrespect and Abuse (“Nonrespectful Care”) Frameworks

A 2010 landscape report summarized the seven major categories of disrespect and abuse based on a review of the literature, in addition to drawing from qualitative sources. The Bowser and Hill framework specifically focuses on the drivers of abusive maternal care during the childbirth experience in healthcare facilities and describes the domains along a continuum to highlight areas of overlap among these categories. This framework recognizes the multilevel contributors to the dynamics of disrespectful care, including patients and individuals, clinicians, facilities, and policies and leadership. Many cross-sectional studies (Appendix C) cite the Bowser and Hill framework to conceptualize childbirth disrespect or abuse or to estimate the global prevalence of disrespect and abuse. Although it does not operationalize RMC, this framework has directly informed instrument development (Tables 4A and 4B) to measure women’s perception or experience with RMC. In 2015, Bohren, et al. described another frequently cited framework regarding health facilities-based mistreatment during childbirth. Through a synthesis of themes of disrespectful, abusive, or neglectful care, this work describes the critical interplay between levels of care, from the patient level to the health system, as well as classifies and measures facilities-based childbirth care mistreatment. Notably, neither of these frequently cited “Disrespect and Abuse” frameworks address community birth, defined as birth outside of the hospital setting.

These two frameworks describe categories referred to as “domains,” or components, that serve as a core set of indicators to guide recognition of disrespect and abuse in facilities and inform the recognition of mistreatment during birth. Bowser and Hill describe seven categories of disrespect and abuse, including those at the clinician level, while Bohren, et al. organize thematic categories of disrespect and abuse into seven domains (Table 2) that help define a range of categories with potential overlap. Throughout the literature, applications of these categories have been used to inform the development of validated tools (Tables 4A, 4B, and 5) to measure RMC, describe corresponding human rights, recognize obstetric violence, and outline categorical sub-themes based on patient narratives, chart reviews, and patient interviews. In the tables summarizing the frameworks we have created broader themes to help characterize the components of nonrespectful maternity care outlined in these frameworks and draw parallels between corresponding concepts.

Both frameworks have been applied globally, but application of these frameworks is largely in LMIC. Importantly, disrespectful care can and does occur in higher income countries,
3. Results

including the United States, where overt or subtle power dynamics, unconscious bias, racism, or discrimination can influence rates of procedures, access to care, attention to patient concerns, attention to complications, pain management, decisions around birth preferences, care environment, birth plans, and partner support. As RMC scholarship continues to grow, it will be critical to directly examine if, and if so, how, disrespectful care drives maternal health racial disparities, particularly related to patterns of denial, delay, and dismissal identified in U.S. maternal mortality reviews. Further, emerging thought regarding the issue of obstetric violence and racism and legal action to address disrespect and violence during childbearing signal both growing awareness and consequences of these issues.

Table 2. Disrespect and Abuse frameworks

<table>
<thead>
<tr>
<th>Themes</th>
<th>Domains/Components of Nonrespectful Maternity Care</th>
<th>2010 Bowser and Hill</th>
<th>2015 Bohren et al. (Mistreatment During Childbirth)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abuse</td>
<td>Physical abuse</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Sexual abuse</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Verbal abuse</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Consent and privacy</td>
<td>Nonconsented care</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Nonconfidential care</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Unnecessary physical exam or procedure</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Discrimination and punishment</td>
<td>Nondignified care</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Stigma and/or discrimination</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Neglect and/or abandonment of care</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Detention (in facilities)</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td>Poor rapport between women and providers</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Care environment</td>
<td>Health system conditions, constraints</td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>

*a As part of failure to meet the “professional standards of care” domain

3.2.2 Rights-Based (“Respectful Care”) Frameworks

Rights-based frameworks emerged in response to disrespect and abuse frameworks and specifically articulate that respectful maternity care is not simply the absence of disrespect and abuse. Rather, rights-based frameworks define RMC as incorporating aspects of reproductive justice, human rights, historical and current social justice, and anti-racism. These frameworks consider the influences of wider social constructs and systems, and center RMC on wellness and thriving rather than exclusively on issues of abuse or disrespect. Essential components and categories of RMC have slightly differing terminology throughout the frameworks but often capture the same concepts, while some describe the inverse of a disrespect and abuse category (i.e., “freedom from abuse”). We summarize overlapping components described by each of the rights-based frameworks through broader themes to help characterize the critical components of RMC outlined in these frameworks (Table 3).

The 2011 White Ribbon Alliance for Safe Motherhood engaged a multidisciplinary shareholder group of educators, clinicians, human rights leaders, and advocates to develop a charter to establish the “universal rights of childbearing women.” Citing evidence from Bowser and Hill, the charter describes the continuum of the seven categories of disrespect and abuse experienced by childbearing individuals during maternity care to assert the understanding of the fundamental human rights of childbearing women. The charter frames maternal rights within the
3. Results

context of human rights more broadly and offers language to directly define the corresponding rights that counter disrespect and abuse categories identified by Bowser and Hill. Each of the seven rights is supported by international human rights standards or instruments. Since its development, the charter has been frequently cited as a global standard for establishing the fundamental rights for maternity care (Appendix Table C-5).

The Maternal and Child Health Integrated Program (MCHIP) complements the work of the White Ribbon Alliance and was created to identify strategies to promote RMC through program evaluation at the community level. Specific contributors of disrespect and abuse were identified through surveys and helped recognize the multifactorial contributors to highlight how policies (e.g., legal, regulatory, institutional, guidelines, protocols), health systems (e.g., infrastructure, support, staffing, philosophy), clinical practices (e.g., availability, provider type, training, culture, awareness), patients (e.g., race/ethnicity, socioeconomic status, gender), and culture of RMC (consent, autonomy, birth support) interact. MCHIP goes further by identifying types of interventions to address and promote RMC, including examples of these interventions in other countries (Appendix Table C-5). In addition to the description of resources used for implementation, the report also suggests the main challenges faced when implementing RMC.

In 2015, the WHO created a statement to address disrespect and abuse during facility-based childbirth as a call for action and for additional research to recognize maternal healthcare as a human rights issue and to reduce global maternal morbidity and mortality. The WHO statement recognized the importance of ensuring universal access to safe and high-quality sexual and reproductive care, but specifically called out vulnerabilities faced during childbirth. The statement aimed to create a universal, action-based plan to prevent and eliminate disrespect and abuse and promote RMC. In addition to the emphasis on human rights, the WHO called for the initiation of programs to improve maternal healthcare, with a focus on RMC. Not only did it call for engagement of governments to support policies and programs, but it also called for data capture to monitor respectful or disrespectful practices and for accountability from professionals and systems. The WHO further shaped current concepts of RMC through its 2018 proposal to define RMC as “organized for and provided to all women in a manner that maintains their dignity, privacy, and confidentiality, ensures freedom from harm and mistreatment, and enables informed choice and continuous support” during labor and childbirth. This was part of a continued effort to improve the quality of care around birth and impact of strategies to reduce maternal and newborn deaths. The WHO recognized that current models of intrapartum care relied on clinician control of birth, which could lead to an excess of medical interventions that could interfere with the physiologic birthing process in healthy pregnancies. This 2018 guideline aimed to help define clinical and nonclinical practices to support healthy childbirth and avoid practices that could undermine women’s autonomy and increase disparities.

Rights-based RMC frameworks have also emerged from global human rights and anti-racism organizations. In 2016, the Black Mamas Matter Alliance collaborated with the Center for Reproductive Rights to produce the Black Mamas Matter Toolkit: Advancing the Human Right to Safe and Respectful Maternal Health Care. This framework importantly contributed to shifting RMC rights and freedom frameworks to specifically articulate the influence of society and systems influence on RMC (Figure 4). As a collective effort to address concerns about Black maternal mortality, as well as elevate pathways supporting Black maternal wellness and thriving, the toolkit provides a strategic direction to advance the conversation around disproportionately poor maternal health outcomes for people of color and uses reproductive justice and rights-based frameworks to spur policy and health system-level changes.
3. Results

The Person-Centered Care framework (PCC)\textsuperscript{78} for reproductive health equity was developed in 2018 to establish a structure for improving the quality of maternal healthcare in LMIC. Three levels of interdependent contexts contributing to reproductive health equity are proposed as part of the framework and interact with eight categories of PCC, defined as domains. This framework was created as an indicator of human rights and as a method to use specific domains as quality indicators to improve the quality of reproductive health at the healthcare facility level, and more broadly at the community and national levels. The PCC framework builds on the WHO quality of care framework\textsuperscript{77} and was informed by the patient-centered care literature. It recognizes the bidirectional relationship between the way care is provided and how it is experienced, and applies this during childbirth, in addition to applications for family planning and abortion care. The interdependent levels of care are used to help explain sources of health inequities encountered during reproductive care. This work directly informed the development of a validated tool, the patient centered maternity care (PCMC) tool,\textsuperscript{111-114} a scale intended to provide a comprehensive evaluation of patient centered maternity care across multiple settings. In the tool, four domains encompass 13 to 30 items on scales that have been evaluated in Kenya, India, Ghana, and the United States (see Section 3.3.3.2.2).

The typology of RMC is described by Shakibazadeh et al.,\textsuperscript{45} and is frequently applied in LMIC to identify RMC practices. The typology was based on a qualitative synthesis of childbirth experiences from both patient and provider perspectives and outlines 12 domains for RMC in healthcare facilities. Additional standards have been applied to heighten awareness for global implementation of RMC practices, including standards by United States Agency for International Development (USAID).\textsuperscript{75}

Most recently, AWHONN created an evidence-based clinical practice guideline and implementation toolkit using a RMC framework to serve as a resource for clinicians of all obstetric specialties.\textsuperscript{71} While it does not outline a standard of care, it serves as a beacon for providing RMC in clinical practice. AWHONN's conceptual model is derived from professional input and aims to guide initiatives to improve maternity care and related health outcomes and informs our conceptual framework described below (Figure 4). The AWHONN framework highlights the concept of reproductive justice, including birth trauma and social justice, and incorporates categories of communication and collaboration. While it is promoted as an important structure to help establish evidence-based guidelines for RMC, effectiveness, or implementation of this framework to inform a clinical tool have yet to be evaluated.
## 3. Results

### Table 3. Rights-Based frameworks

<table>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Freedom from abuse and violence</td>
<td>Freedom from violence</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Freedom from harm and/or ill treatment and/or mistreatment</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Freedom from practices harmful to women and girls</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Informed Consent and Shared Decision-Making</td>
<td>Right to empowerment for women and girls</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Right to transparent information and informed consent</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Right to decide and/or participate in decision-making; Respect for choices; Freedom from coercion</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Right to liberty and/or autonomy and/or self-determination</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Dignity, Respect, Privacy</td>
<td>Right to dignity</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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</tr>
<tr>
<td></td>
<td>Right to respect</td>
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<td>✓</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td></td>
<td>Right to confidentiality</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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</tr>
<tr>
<td></td>
<td>Right to privacy</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Equitable Care</td>
<td>Right to equality and/or nondiscrimination or freedom from discrimination and right to equitable care</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<td>✓</td>
</tr>
<tr>
<td></td>
<td>Right to universally accessible healthcare <em>(defined as physically, economically, and informationally accessible)</em></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Right to health</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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</tbody>
</table>
### 3. Results

<table>
<thead>
<tr>
<th>Themes</th>
<th>Rights-Based Categories and Components</th>
<th>2011 White Ribbon Alliance\textsuperscript{76}</th>
<th>2012 USAID RMC standards\textsuperscript{77}</th>
<th>2013 MCHIP\textsuperscript{78}</th>
<th>2014 and 2018 World Health Organization\textsuperscript{79}</th>
<th>2018 Black Mamas Matter\textsuperscript{72}</th>
<th>2018 Typology of RMC\textsuperscript{45}</th>
<th>2018 PCC Framework\textsuperscript{78}</th>
<th>2019 Australian Guidelines for Woman Centered Maternity Care\textsuperscript{80}</th>
<th>2022 AWHONN\textsuperscript{71}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective, Timely, Quality Care</td>
<td>Right to effective remedy and/or high-quality healthcare</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Right to acceptable healthcare</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td>Right to timely healthcare</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td></td>
<td>Efficient and effective care</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Safety</td>
<td>Right to safe care</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Right to protection from arbitrary and preventable loss of life</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Communication and Accountability</td>
<td>Accountability (individuals or organizations or governmental systems acknowledge and take responsibility for their actions)</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
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<td></td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Effective communication</td>
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<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Continuity of care</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Respect for Culture and Family Support</td>
<td>Cultural and personal preferences respected</td>
<td></td>
<td>✓</td>
<td>✓</td>
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<td></td>
<td>Access to family and community support</td>
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</tbody>
</table>

Abbreviations: AWHONN = Association of Women’s Health and Obstetric Neonatal Nurses; MCHIP = Maternal and Child Health Integrated Program; RMC = respectful maternity care; PCC = person-centered care; USAID = United States Agency for International Development
3. Results

We created a conceptual diagram to illustrate the multifaceted dimensions of RMC (Figure 4) based on concepts and themes described in RMC frameworks and input from experts. While care coordination is described as one of the Agency for Healthcare Research and Quality’s program priorities, these frameworks do not directly define teamwork or communication as an essential component of RMC. However, the concept of communication is well-represented through elements of shared decision making and the role of the patient in care decisions. Our conceptual diagram represents the levels of influence that impact the continuum of the respectful maternity care experience and the relationships among them. The arc of RMC incorporates influences at societal, health system, clinician, and patient levels. Overarching themes of RMC that affect how these influences relate are represented by broader concepts such as access to care (e.g., geographic considerations, ease of travel, insurance), equity (e.g., race/ethnicity, gender, age, culture that affect patient-family-clinician relationships), concepts of consent (e.g., care decisions, procedures, interventions), and autonomy (e.g., patient choice, autonomy, shared decision making), and feed into the arc to influence respectful care. Critical components of RMC are the foundation of this framework, serving as pillars in the pathway to inform care decisions and patient outcomes, including maternal and infant health outcomes and the patient experience. Each step in the pathway represents a potential inflection point that might give rise to disrespectful care, with additional barriers for populations who historically or currently experience health disparities.

Effective delivery of RMC depends on varying influences at the health system or facility level. Clinician and patient level dynamics introduce additional complexity related to professional and individual factors. The patient experience is central to how implementation of RMC components impacts care decisions and lead to clinical outcomes.
3. Results

Figure 4. Conceptual diagram


\(^a\) The multiple levels of influence that impact respectful maternity care are illustrated in the conceptual diagram.
3. Results

3.3 Key Question 1. Which components of respectful maternity care have been examined using validated measures? Are there validated tools to measure RMC?

3.3.1 Key Findings

- No single validated tool stands out as the best measure of RMC, however the intrapartum version of the Mother’s Autonomy in Decision-making (MADM) and the Mothers On Respect index (MORi) tools, and the Childbirth Options, Information, and Person-Centered Explanation (CHOICES) index for directly measuring RMC demonstrated good content and construct validity and internal consistency based on analysis of psychometric properties and are most relevant to clinical practice in U.S. populations.
- The Revised Childbirth Experience Questionnaire (CEQ-2) also demonstrated good overall validity for measuring childbirth experiences and includes RMC components.
- The tools identified as having good validity to measure RMC had components that incorporated themes of privacy, dignity, respect, autonomy, and communication or shared decision making.
- One tool described communication as a measure of safety and accountability but was not designed to measure RMC. No other tools specifically describe teamwork or communication (amongst providers, staff, patients and families) as part of an RMC tool; however, shared decision making is framed as way to improve communication between patients and providers.
- Twenty-four validation studies evaluated 12 tools for measuring RMC or components of RMC, including studies validating these tools in other languages.
- Eight tools were specifically designed to evaluate RMC; four other tools included RMC-relevant components or primarily evaluated women’s birth experiences.
- Ten tools were considered to have adequate (fair or good) overall quality; overall study quality was considered inadequate (poor) in studies of two tools.
- There is no clear gold-standard tool for evaluation of criterion validity of maternal birth experience or tools to measure RMC.

3.3.2 Description of Included Studies

Twenty-four studies\textsuperscript{66-69,106,111-114,118-132} were identified for inclusion based on evaluation of 12 tools aimed at measuring women's experiences with RMC (\textbf{Tables 4A and 4B, Appendix Table C-1}). Some of the frameworks on which measures were based included Bohren, et al. (2015),\textsuperscript{74} Bowser and Hill (2010),\textsuperscript{75} and the Person-Centered Care initiative (2017),\textsuperscript{111} while other tools combined components from more than one framework (see \textbf{Tables 4A, 4B, and 5}).

Studies included for KQ1 employed mixed-methods, cross-sectional, and observational designs to evaluate psychometric properties of tools to measure RMC or maternity care experiences. As described in the methods, quality of individual studies was assessed based on general principles of COncensus-based Standards for the selection of health Measurement Instruments (COSMIN) criteria (\textbf{Appendix A}).\textsuperscript{60,62,133} Assessment of validated tools focused on content validity, construct validity and internal consistency in addition to consideration of participant sampling and population characteristics. Many of the validated tools were applied in a variety of countries or settings (\textbf{Appendix C}).
3. Results

Of the twelve tools evaluated in 24 psychometric assessment studies, eight tools were specifically intended to measure RMC based on published conceptual RMC frameworks. Four other tools included concepts or questions related to components considered important for measuring RMC, such as consent and autonomy, dignity and respect, communication and information exchange, and supportive care, as well as women’s overall intrapartum or maternity care experience. Among validation studies (i.e., those evaluating content validity or construct validity) specifically designed to evaluate RMC, eight tools were provided to women to evaluate current or prior birth experiences, including surveys given during pregnancy and in the postpartum setting, ranging from immediately after birth to 1 year postpartum (Table 4A). The four remaining tools measured general maternity care or birth experiences in women who were surveyed postpartum (Table 4B). One study explicitly excluded women with high risk or complicated pregnancies, while two studies reported that 36 percent and 78.9 percent of the population experienced pregnancy complications. One study was conducted exclusively in Black birthing people. Twelve studies were conducted in LMIC and 12 in higher income countries. Ten tools (in 21 studies) were considered to have adequate (fair or good) overall quality; overall quality was considered inadequate (poor) for two instruments (2 studies) and one version of an instrument validated by other studies with better quality (Appendix Table D-1).

A summary of the validated tools used to measure RMC is presented in Tables 4A and 4B, organized by those that directly measured RMC and those that may have included components of RMC but were not designed to specifically measure RMC. A summary of how items measured in the tools correlated with RMC themes and components identified in RMC frameworks is presented in Table 5.
### 3. Results

#### Table 4A. Summary of validated tools that specifically measure respectful maternity care (RMC focused)

<table>
<thead>
<tr>
<th>Focus of Tool (RMC or Other)</th>
<th>Validated Tool</th>
<th>Description</th>
<th>Number of Items; Response Measures</th>
<th>Dimensions/Subscales</th>
<th>Summary of Psychometric Documentation(^a)</th>
<th>Timing(^b)</th>
<th>Countries With Tool Adaptations</th>
<th>Overall Quality(^c)</th>
</tr>
</thead>
</table>
| RMC-focused                 | CHOICES \(^{118}\) | Tool to evaluate shared decision making in maternity care | 15-items total; 9-item scale for intrapartum care; 6-point Likert response scale | Incorporated 14-item MORi and 7-item MADM; includes Childbirth Options, Information, and Person-Centered Explanations focused on (1) respectful care (2) autonomy (3) shared decision making | Good-quality documentation in 1 study addressing:  
  - Content validity  
  - Construct validity  
  - Criterion validity  
  - Internal consistency  
  - Cronbach’s α > 0.90 | Prenatal, intrapartum | United States\(^{118}\) | Good |
|                            | Disrespect and Abuse Questionnaire\(^{124}\) | Tool to measure patient perception of disrespect and abuse using a scale translated to Farsi. | 23 items in 7 domains; binary variables with “yes” to any measure considered abuse for the domain. | Included: (1) protection from physical harm or ill-treatment; (2) right to information; (3) informed consent; (4) protected choice; (5) confidentiality and privacy; (6) dignity and respect; equitable care; (7) not abandoned, detained or confined. | Good-quality documentation in 1 study addressing:  
  - Content validity  
  - Construct validity  
  - Reproducibility  
  - Internal consistency  
  - Cronbach’s α > 0.60 | Postpartum | Iran\(^{124}\) | Good |
|                            | Mother’s Autonomy in Decision-Making\(^{122,121}\) | Tool to measure autonomy in decision making during maternity care that measures a woman’s ability to lead decision making and whether choices are respected based on interpretations of the level of autonomy experienced during care. Can assess past or current childbirth experiences. | 7-item scale; 6-point Likert scale; higher scores indicate higher levels of respect or autonomy when engaging in shared decision-making with a maternity care provider. | Incorporates (1) decision making experiences and preferences over the childbearing cycle, (2) communication (with maternity professionals), (3) shared decision making (women’s perception of their role and agency in a shared decision-making process | Good-quality documentation in 1 study addressing:  
  - Construct validity  
  - Convergent validity  
  - Cronbach’s α > 0.70 | Prenatal, intrapartum, postpartum | Australia\(^{97}\) Canada\(^{129}\) The Netherlands\(^{122,126}\) | Fair |
### 3. Results

<table>
<thead>
<tr>
<th>Focus of Tool (RMC or Other)</th>
<th>Validated Tool</th>
<th>Description</th>
<th>Number of Items; Response Measures</th>
<th>Dimensions/Subscales</th>
<th>Summary of Psychometric Documentation</th>
<th>Timing</th>
<th>Countries With Tool Adaptations</th>
<th>Overall Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mothers on Respect Index[^7,^122,^126,^130]</td>
<td>Tool to measure perceived levels of respect during intrapartum care and maternity care options as a patient informed quality and safety indicator.</td>
<td>7 and 14-item scale; 6-point Likert scale (strongly disagree to strongly agree), summed for a total score.</td>
<td>Based on items measuring aspects of patient-provider communication including 3 categories of RMC: (1) autonomy and comfort when accepting or declining care; (2) modifying behavior because of fear of disrespect; (3) perceived differential treatment based on a demographic factor</td>
<td>Good-quality documentation in 1 study addressing: - Construct validity - Convergent validity - Cronbach’s α &gt; 0.70</td>
<td>Prenatal, intrapartum, postpartum</td>
<td>Australia[^9], Canada[^130], The Netherlands[^122,^126], United States[^130]</td>
<td>Fair</td>
<td></td>
</tr>
<tr>
<td>Quality of Respectful Maternity Care Questionnaire in Iran[^69]</td>
<td>Questionnaire developed to evaluate RMC in labor, delivery, and postpartum care.</td>
<td>57 questions; 5-point Likert scale</td>
<td>Based on Bowser &amp; Hill and seven categories of disrespect and abuse developed by the White Ribbon Alliance charter, 2011</td>
<td>Fair-quality documentation in one study addressing: - Content validity - Internal consistency - Cronbach’s α &gt; 0.70</td>
<td>Postpartum</td>
<td>Iran[^69]</td>
<td>Fair</td>
<td></td>
</tr>
<tr>
<td>23i-RMC scale[^120]</td>
<td>Scale that measures childbearing women’s experiences of RMC during childbirth and the immediate postpartum period.</td>
<td>23-item scale</td>
<td>Adapted into 3 categories/subscales: (1) verbal abuse free; discriminatory-free and dignified care; (2) physical and psychological abuse-free care; (3) compassionate care with 23 items</td>
<td>Poor-quality documentation in 1 study addressing: - Content validity - Good internal consistency - Cronbach’s α for all items = 0.945</td>
<td>Postpartum</td>
<td>Ghana[^120]</td>
<td>Poor</td>
<td></td>
</tr>
<tr>
<td>Respectful Maternity Care scale[^121,^128]</td>
<td>Tool to measure women’s perceptions of RMC received in healthcare facilities in Ethiopia.</td>
<td>15-item scale; 5-point Likert scale</td>
<td>Based on 4 components: (1) friendly care; (2) abuse-free care; (3) timely care; and (4) discrimination-free care</td>
<td>Fair-quality documentation in 2 studies addressing: - Content validity - Construct validity - Criterion validity - Internal consistency - Cronbach’s α for all items = 0.86</td>
<td>Postpartum</td>
<td>Ethiopia[^128], Iran[^121]</td>
<td>Fair</td>
<td></td>
</tr>
</tbody>
</table>
3. Results

<table>
<thead>
<tr>
<th>Focus of Tool (RMC or Other)</th>
<th>Validated Tool</th>
<th>Description</th>
<th>Number of Items; Response Measures</th>
<th>Dimensions/Subscales</th>
<th>Summary of Psychometric Documentationa</th>
<th>Timingb</th>
<th>Countries With Tool Adaptations</th>
<th>Overall Qualityc</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women's Perception of Respectful Maternity Care Scale66</td>
<td>Instrument used to measure subjective experiences of RMC during labor and childbirth.</td>
<td>19-item scale; 4-point Likert scale</td>
<td>Based on RMC factors of providing comfort, participatory care, and mistreatment</td>
<td>Fair-quality documentation in 1 study addressing: • Content validity • Construct validity • Internal consistency • Cronbach’s α for all items = 0.91</td>
<td>Postpartum</td>
<td>Iran66</td>
<td>Fair</td>
<td></td>
</tr>
</tbody>
</table>

Abbreviations: CHOICES = Childbirth Options, Information, and Person-Centered Explanation; MADM = Mother’s Autonomy in Decision Making scale; MORi = Mothers on Respect Index; RMC = respectful maternity care

Note: Cronbach’s α for internal consistency (reliability).

a Overall study quality was rated good/fair/poor based on participant selection, population description and documentation of psychometric evaluation of validity and internal consistency

b Timing of when survey or tool was given to parturient

c Overall quality was rated good/fair/poor based the general quality of the psychometric studies, the extent to which content validity, construct validity and internal consistency evaluations were documented in the population of interest for a given tool as well as RMC components contained in the tool and potential applicability to U.S. settings to suggest tool(s) that may be most appropriate for initial testing and implementation of RMC.

d Three studies contributed to both MADM and MORi67,122,126

Table 4B. Summary of validated tools that measure components of respectful maternity care (not directly RMC focused)

<table>
<thead>
<tr>
<th>Focus of Tool (RMC or Other)</th>
<th>Validated Tool</th>
<th>Description</th>
<th>Number of Items; Response Measures</th>
<th>Dimensions/Subscales</th>
<th>Summary of Psychometric Documentationa</th>
<th>Timingb</th>
<th>Countries With Tool Adaptations</th>
<th>Overall Qualityc</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not directly focused on RMC</td>
<td>CEQ-268,119,123,125,131,132</td>
<td>Childbirth Questionnaire 2.0 to evaluate labor experience, based on CEQ134; (General childbirth)</td>
<td>22-item scale; 4-point Likert scale for 19 items and visual analogue scale for 3 measures.</td>
<td>4 categories (domains), 22 items assessing the childbirth experience (0-100; higher scores indicating better experience). Focused on: (1) own capacity, (2) professional support, (3) perceived safety, (4) participation</td>
<td>Good-quality documentation in 4 studies addressing: • Content validity • Construct validity • Internal consistency • Test-retest reliability • Cronbach’s α ≥ 0.70</td>
<td>Postpartum</td>
<td>Iran68,123,125,126,127 Malaysia125 Sweden119 United Kingdom131,132</td>
<td>Fair</td>
</tr>
</tbody>
</table>
### 3. Results

<table>
<thead>
<tr>
<th>Focus of Tool (RMC or Other)</th>
<th>Validated Tool</th>
<th>Description</th>
<th>Number of Items; Response Measures</th>
<th>Dimensions/Subscales</th>
<th>Summary of Psychometric Documentation</th>
<th>Timing</th>
<th>Countries With Tool Adaptations</th>
<th>Overall Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MCPC&lt;sup&gt;123&lt;/sup&gt;</td>
<td>Mother-centered Prenatal Care scale, informed by Listening to Mothers 3 and Changing Childbirth in British Columbia; (Other)</td>
<td>11-item scale</td>
<td>Combined two tools into a single survey in Hungarian, with questions covering screening, prenatal care, birth care, postpartum care, care preferences, informal payments, MADM scale items, and open-ended questions about the best and worst aspects of the experience of care. Focused on (1) cash payment (2) preferences for type of care provider (3) consent and autonomy</td>
<td>Poor-quality documentation in 1 study addressing: - Content validity - Cronbach $\alpha \geq 0.80$</td>
<td>Postpartum</td>
<td>Hungary&lt;sup&gt;123&lt;/sup&gt;</td>
<td>Poor</td>
</tr>
<tr>
<td></td>
<td>PCMC scale(s)&lt;sup&gt;111-114&lt;/sup&gt;</td>
<td>Scale intended to evaluate patient-centered maternity care. Intended to be comprehensive and applicable across multiple settings. The shorter PCMC scale has been applied across multiple settings. (Other)</td>
<td>13 to 30+ individual item; Exploratory factor analysis and confirmatory factor analysis confirmed unidimensional PCMC for the 13 items.</td>
<td>10 categories (domains) including components of RMC: (1) dignity and respect; (2) autonomy (3) privacy/confidentiality (4) communication and support; (5) trust</td>
<td>Fair-quality documentation (3 studies; 27, 30 and 35 item scales) addressing: - Content validity - Construct validity - Internal consistency - Cronbach’s $\alpha &gt; 0.70$ in four settings</td>
<td>Postpartum</td>
<td>Ghana&lt;sup&gt;113&lt;/sup&gt; &lt;br&gt; India&lt;sup&gt;112,113&lt;/sup&gt; &lt;br&gt; Kenya&lt;sup&gt;111,113&lt;/sup&gt; &lt;br&gt; United States&lt;sup&gt;114&lt;/sup&gt;</td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td>PREM-OB Scale&lt;sup&gt;TM106&lt;/sup&gt;</td>
<td>Scale intended to characterize and quantify obstetric racism based on childbirth experiences of birthing Black people.</td>
<td>7 to 31 item scales; factor analysis with 3 factor structure with good fit indices for items included in the 3 unidimensional scales.</td>
<td>3 independent scales to capture elements of obstetric racism including one with overlapping components of RMC (humanity): (1) safety; (2) autonomy; (3) communication; and (4) empathy</td>
<td>Fair-quality documentation (1 study) addressing: - Content validity - Construct validity - Criterion validity - Internal consistency: Cronbach $\alpha = 0.96$, for the humanity measure</td>
<td>Postpartum</td>
<td>United States&lt;sup&gt;106&lt;/sup&gt;</td>
<td>Fair</td>
</tr>
</tbody>
</table>

Abbreviations: CEQ-2 = Revised Childbirth Experience Questionnaire; MCPC = Mother-Centered Prenatal Care scale; PCMC = person-centered maternity care; PREM-OB = Patient-reported Experience Measure of Obstetric Racism; RMC = respectful maternity care

Note: Cronbach’s $\alpha$ for internal consistency (reliability).
3. Results

a Overall study quality was rated good/fair/poor based on participant selection, population description and documentation of psychometric evaluation of validity and internal consistency
b Timing of when survey or tool was given to parturient
c Overall quality was rated good/fair/poor based the general quality of the psychometric studies, the extent to which content validity, construct validity and internal consistency evaluations were documented in the population of interest for a given tool as well as RMC components contained in the tool and potential applicability to U.S. settings to suggest tool(s) that may be most appropriate for initial testing and implementation of RMC.
3. Results

3.3.3 Detailed Analysis

3.3.3.1 RMC Tools

3.3.3.1.1 The Childbirth Options, Information, and Person-Centered Explanation Tool

3.3.3.1.1.1 Key Findings
- The CHOICES tool, evaluated in a U.S. setting, included components based on previously validated RMC tools related to quality improvement and shared decision-making in maternity care.
- The CHOICES tool had adequate content validity, construct validity and internal consistency for evaluating RMC based on one good-quality study.

3.3.3.1.1.2 Detailed Analysis
One good-quality study conducted psychometric evaluations of an RMC-specific tool. The CHOICES tool was developed in the United States based on the MADM and MORi tools to evaluate quality improvement and shared decision making by addressing gaps in these measures. Correlations between CHOICES, MORi and MADM tools were also evaluated. Of the 15 questions, 9 specifically addressed intrapartum experiences and measured RMC components such as respectful care, autonomy, and shared decision-making. For this tool, shared decision making was framed as way to improve communication between patients and providers. Target population characteristics, including patient demographics, pregnancy and birth characteristics, were well described. This study also provided additional information on pregnancy complications such as diabetes, hypertension, and complications impacting length of stay. Details and data informing multiphase content validity and tool development were provided separately for prenatal and intrapartum questions. CHOICES was delivered online to a convenience sample of women who had given birth in the previous year. Differential item functioning analyses were conducted to evaluate internal consistency for race, age and parity; no variance in measure consistency was seen across these comparisons. Study limitations included risk of selection bias and recall bias due to sampling and timing of the survey. Analyses of validation measures suggest good internal consistency and construct validity.

3.3.3.1.2 The Mother's Autonomy in Decision Making and the Mothers on Respect Index

3.3.3.1.2.1 Key Findings
- Only one study in a Dutch population evaluated psychometric properties of the MORi or the MADM specifically during the intrapartum period. The adapted and translated versions of these tools demonstrated good psychometric properties in the study population and how factors such as birth interventions impacted how women responded.
- A Dutch intrapartum study found that women who had pregnancy complications or birth interventions scored lower on MADM, MORi and CEQ-2 compared with women who had healthy pregnancies and uncomplicated, physiologic births.
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- Women from vulnerable populations (e.g., recent immigrants or refugees, and/or multiple barriers [poverty, housing instability, incarceration] or self-described risk factors [high blood pressure, diabetes, lack of social support]) were more likely than women without identified barriers or risk factors to score lower on the MORi scale in one study.

- Conclusions regarding the psychometric properties of MADM and MORi and suitability in other populations are less clear in other validation studies of MADM and MORi given limited descriptions of study populations and in some studies, incorporation of responses across multiple pregnancies.

3.3.3.1.2.2 Detailed Analysis

One good-quality study,126 3 fair-quality studies,122,129,130 and one poor-quality study,67 evaluated the psychometric properties of the MADM and/or the MORi, including the initial, primary survey tools for MADM129 and MORi130 used in North America. Due to both tools being evaluated within the same studies, we have summarized the results of the tools together. Additional studies evaluated versions adapted for use in Australia,67 or translated and adapted tools for Dutch maternity care,122,126 along with the CEQ-2 (see below). The MADM tool129 consists of 31 items focused on measurement of autonomy in decision making. The MORi tool130 is intended to assess aspects of disrespect and discrimination based on one of two versions (a 7-item scale or 14 item scale) in addition to aspects of “respectful patient-provider interactions and their impact on a person's sense of comfort, behavior, and perceptions of racism or discrimination.” Initial studies evaluating the psychometric properties of these tools involved multiple stakeholders for the content and item development. Although authors indicate that content validation was extensive, details of decision making and rationale for final item inclusion were less clear. Item development, as described by the study, was based on community led, participatory research informed the inclusion of patient-directed items in the validated scale with input from psychometric experts, clinicians, psychologists, and sociologists. Authors performed factor analyses to evaluate construct validity, but specific hypotheses or details of modeling were not reported. Both the MADM and the 14-item MORi had good internal consistency. Both tools measured maternity care experiences across pregnancy and were not specifically focused on the birth event/experience (intrapartum) or postpartum period. Although the MORi tool contains four items specific to treatment “when I had my baby,” limited detail of the psychometrics for these specific items was provided. Women from vulnerable populations (e.g., recent immigrants or refugees, and/or multiple barriers [poverty, housing instability, incarceration] or with self-described risk factors [high blood pressure, diabetes, lack of social support]) were more likely than women without identified barriers or risk factors to score lower on the MORi scale in the initial validation study.130

Only one good-quality study,126 adapting the Dutch translation122 and focusing on assessing aspects of intrapartum RMC based on MADM, MORi and the CEQ-2 (see below), was the most comprehensive psychometric evaluation of the MADM and MORi. The CEQ-2 was translated from English to Dutch and was evaluated with MADM and MORi to assess intrapartum experiences. The tools were administered less than 1 year after birth. This study clearly defined the patient population, provider type, gestational age, and other important population characteristics, and evaluated known group validity based on hypotheses regarding differences in RMC perception based on demographic, pregnancy and delivery characteristics. Authors reported significantly lower scores on all three measures among women who had pregnancy complications or birth interventions compared with women who had healthy pregnancies and
3. Results

“normal” physiologic births. Women ≥36 years old had higher CEQ-2 scores versus other age groups and significantly lower MORi scores were seen in women with lower incomes. Online surveys for the translated/adapted MADM and MORi and CEQ2 were completed by 97.6 percent of participants (639/655). The psychometric assessment of this adapted tool suggests good content validity, construct validity and internal consistency for use in intrapartum patients. In addition, assessment of convergent validity between MADM, MORi and CEQ-2 suggests moderate correlation between the MADM and CEQ 2.0 and between MADM and MORi with strong correlation between MORi and CEQ-2, which provides additional evidence of construct validity.

A primary limitation of the five studies evaluating the MADM or MORi is the potential selection bias related to use of community convenience sampling, usually recruited online from social media sources for enrollment of volunteers. The tools were administered online to community or convenience samples of women who could describe experiences of one or more pregnancies; survey completion related to time around birth is not described. In the MORi it is also not clear to what extent participant responses applied to one or multiple pregnancies. These limitations introduce challenges for assessing applicability for this review. Similarly, neither the Australian adaptation,67 which only evaluated content validity, nor the initial Dutch translation122 specifically reported on labor, delivery, or post-partum experiences, the subject of this review. Studies from North America129 and the two Dutch studies122,126 provided adequate information on the target population regarding demographics, pregnancy complications, birth-related factors (e.g., mode of delivery, instrumented birth). Both Dutch studies provided some limited additional content validation related to the translation of the tools to Dutch via pilot administration and assessment of tool readability and comprehensibility.

3.3.3.1.3 Respectful Maternity Care Scale and Adaptations

3.3.3.1.3.1 Key Findings

- The original RMC-specific tool was developed in Ethiopia but documentation of key psychometric properties was inadequate. Documentation of construct validity and internal consistency of the original tool were considered inadequate.
- Characterization of the target population was not possible because included studies did not provide sufficient information.
- Content validity of an RMC scale adapted for a Farsi population was adequate. Overall internal consistency was good; however only one of the subscales (friendly care) demonstrated good internal consistency.
- Two fair-quality studies66,69 evaluated de novo RMC measures in Iran, adapted from previously validated RMC tools.
- One good-quality study124 translated an RMC tool into Farsi to evaluate disrespect and abuse in women immediately postpartum and had adequate internal consistency.
- The RMC scale has not been adapted for or validated in a U.S. population.

3.3.3.1.3.2 Detailed Analysis

Two, fair-quality studies of the RMC scale described the development and initial psychometric properties of RMC128 in a population of Ethiopian women or a translated and adapted version in Iran.121 The original tool128 was administered within 7 weeks postpartum to a consecutive group of women, however details of the demographics, pregnancy and delivery were
3. Results

not provided. Content validity, including face validity, was well documented; however, details of construct validity (model fit, hypotheses tested) were not well reported and important factors related to consented and confidential care were not verified in exploratory factor analysis. The 15-item tool include four components: friendly care, abuse-free care, timely care, and discrimination-free care. The scale was evaluated based on the ability to differentiate tool responses for “normal” and complicated deliveries, but data were not provided. Internal consistency was good for the tool overall, but not for individual domains. Authors report correlation of the RMC scale with global satisfaction measures, described as closely related to RMC because they measure satisfaction with labor and delivery and whether a patient would recommend the facility to others. This correlation suggests concurrent validity but note that there are no appropriate scales for evaluation of criterion validity and these measures are not clearly a proxy for RMC. Another fair-quality, psychometric evaluation of an adapted RMC scale was conducted in a random selection of Iranian women and translated into Farsi. Limited demographic information was provided, and the study did not report additional population characteristics or details on pregnancy or delivery. The translated version included pilot testing and content validation. Factor analysis evaluating construct validity suggested poor model fit of the original tool and resulted in removal of one item from the original scale, resulting in 14 items across dimension of abusive care, effective care, friendly care, and respectful communication. These four new subscales were defined for the revised tool due to poor fit of the original tool to the target population. These new subscales were adapted and based on the original RMC tool, but had more of an emphasis on the addition of the respectful communication component. While the overall internal consistency for this tool was good, only the friendly care subscale demonstrated good internal consistency.

Two fair-quality studies evaluated de novo RMC measures in Iran, adapted from previously validated RMC tools. The Quality of RMC Questionnaire in Iran (QRMCQI) psychometric evaluation was based on the Bowser and Hill framework and the White Ribbon Alliance (see Tables 4A, 4B, and 5) and used a random sample of patient between health centers. Characteristics of the target population were not reported. Content validity was documented and model fit for factor analysis construct validity was less clear. Internal consistency was good. Results from this evaluation suggest next stage development to include RMC item classifications such as “dignity and respect, communication and autonomy, supportive care, and system’s “attitude toward RMC.”

One good-quality study evaluated experiences of disrespect and abuse in women with vaginal deliveries using psychometric evaluation of the Disrespect and Abuse Questionnaire. Surveys were translated into Farsi and given to participants 6 to 18 hours postpartum. Seven domains were assessed on a 23-item scale to assess physical harm or ill-treatment, choice and consent, dignity and respect, and equitable care, and being free from discrimination. The tool demonstrated adequate internal consistency (Cronbach α 0.60) and adequacy of the model based on face and content validity, construct validity, and reproducibility measures.

The Women’s Perspective of Respectful Maternity Care (WP-RMC) was developed and assessed in Iran to evaluate postpartum women with low risk pregnancies and uncomplicated vaginal deliveries. Three categories included 19 items to assess comfort, participation, and mistreatment during delivery through an evaluation of physical, emotional, and participatory aspects of RMC. The tool demonstrated good internal consistency (Cronbach α for all items 0.91). Limitations to the psychometric evaluation of the WP-RMC were related to unclear
3. Results

sampling methods. For construct validation, some items did not meet the threshold for validity and hypotheses were not stated.

A poor-quality study evaluated RMC in Ghana using the 23-item RMC scale (23iRMC) tool. They survey tool was implemented during the postpartum period using convenience sampling, but measures were poorly reported and provided very limited information on the target populations. Methods and results for evaluation of the 23iRMC tool for content and construct validity did not provide clear sense of the quality for this tool although authors report good internal consistency.

3.3.3.2 Tools Not Directly Focused on RMC

3.3.3.2.1 Childbirth Experience Questionnaire (CEQ and CEQ-2)

3.3.3.2.1.1 Key Findings

• The CEQ measured childbirth experience but did not address RMC specifically; the tool includes components of RMC. Six studies evaluated the CEQ-2 that incorporates some components related to RMC, such as support, safety, and shared decision making.

• The Swedish CEQ-2 demonstrated good overall psychometric performance for measuring childbirth experience based on content validity, validity, construct validity and internal consistency and has been validated in women with low risk pregnancies.

• The English CEQ-2 adaptation evaluated in primiparous women demonstrated good content validity, construct validity, internal consistency and moderate test-retest reliability.

• Both CEQ-2 versions evaluated specific demographic, pregnancy and birth-related factors. Results from these analyses suggest that some factors may impact total scores and individual domain scores. Higher scores were noted within the “own capacity” category for labor duration ≤12 hours versus >12 hours and in women having spontaneous vaginal delivery versus those having operative delivery. Scores for perceived safety were also higher among women with spontaneous vaginal delivery.

• A Farsi translation of CEQ-2 demonstrated good psychometric properties, including test-retest reliability.

3.3.3.2.1.2 Detailed Analysis

The CEQ was developed in Sweden and translated into English and adapted for use in the UK. The CEQ focuses on four dimensions: own capacity, professional support, perceived safety, and participation. While it was not created to measure RMC, some of the newer versions incorporate related RMC components. The CEQ-2 tool retains the original items related to “own capacity” (self-perceived elements of control during childbirth), and perceived safety in addition to an 11-item revision of the professional support and participation domains to better reflect perspectives on decision making, patient participation, and professional support. Based on model evaluation and fit and confirmatory analyses, items were revised to improve measurement properties. The CEQ-2 also reworded items from the original version to enhance clarity. Psychometric evaluation of the Swedish and English versions of both tools was rated good for most properties. For example, the primary CEQ-2 studies provided detailed methods for content validity and documented good internal consistency overall and for the primary domains.
3. Results

All studies of the CEQ-2 provided some detail of the target population (e.g., demographic information as well as information regarding pregnancy and birth factors). Construct validity included evaluation of specific hypotheses based on these factors. The CEQ-2 also demonstrated good overall validity for measuring childbirth experiences and includes some RMC components. However, the use of convenience sampling creates potential for selection bias.

A good-quality study of the Swedish CEQ-2 included primiparous and multiparous women, and reported population characteristics including maternal age, oxytocin augmentation use, and mode of birth (spontaneous vaginal, instrumented vaginal birth or emergency caesarean). These factors were evaluated as part of a known-group construct validity assessment based on stated hypotheses. A fair-quality study evaluating the English CEQ-2 tool was administered only to primiparous women at 1 month and 6 weeks post-partum, but had a low response rate of 52 percent. Women whose babies had died or were unexpectedly admitted to NICU were excluded. The internal consistency was good for the tool overall and for all domains except participation in this population. Known-group construct validity assessment on total scores suggest no differences based on labor duration ≤12 hours or use of augmentation. Significantly higher scores for “own capacity” were noted for labor duration ≤12 hours versus >12 hours but there were no differences for the other three domains. Higher total scores were reported in women having spontaneous vaginal delivery versus those having operative delivery and for the domains of “own capacity” and perceived safety.

A fair-quality study of the CEQ-2 was also translated into Farsi and adapted for use in primiparous women in Iran. This study was based on a previous translation and a random selection of women 4-16 weeks postpartum. Women with complicated pregnancies were excluded. In addition to affirming content and face-validity, this version had good construct validity and reproducibility. Internal consistency was good overall and was good for all domains except participation. Known-group validation in this target population suggests that total CEQ-2 scores were higher in women with labor duration ≤12 hours versus >12 hours and in women who had a sense of control over childbirth. There were no differences in total scores or individual domain scores related to oxytocin use (i.e., augmentation).

The Farsi version of the RMC scale was applied in a third fair-quality study to evaluate the status of RMC in Iranian women and assess the tool’s correlation to CEQ-2. The tools were administered to women between 6 and 18 hours postpartum who had a vaginal birth, no infant death or major malformations. Authors report significant correlation between total RMC and CEQ-2 scores and subscale scores, suggesting good convergent validity between these tools in this population. Regression analyses suggest that CEQ-2 scores increased significantly with increasing RMC scores after adjusting for sociodemographic and obstetrical factors.

3.3.3.2.2 Person-Centered Maternity Care

3.3.3.2.2.1 Key Findings

- Overall, the PCMC scale demonstrated good content validity and internal consistency across versions and was tested across several populations and cultures, primarily in LMIC. There were few differences in tools’ psychometric performance for these across populations. Other aspects of reliability were not evaluated.
- The U.S. version demonstrated similar overall psychometric properties to the other PCMC scales.
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- The shortened, 13-item PCMC demonstrated good content validity based on evaluation in LMIC; however, construct validity was less clear and may not fully capture important aspects of RMC.
- Criterion validity for the PCMC was unclear based on a lack of gold standard tool for measuring RMC.

3.3.3.2.2 Detailed Analysis

Four fair-quality observational studies from the same lead author describe the development and psychometric evaluation of the PCMC scale. The PCMC scale was initially developed and evaluated in rural and urban women in Kenya in 2017 (30 item scale) and includes questions that measure RMC categories such as dignity and respect, communication and autonomy, and supportive care. Additional psychometric evaluations were conducted to adapt the tool for use in India in 2018 (27 item scale) and most recently in the United States in 2022 (35 item scale). A shortened version using a 13-item scale was developed to evaluate recent birth experiences of women in Kenya, Ghana, and India. Development and refinement of the PCMC tool across studies included evaluation of literature sources, input from experts and birthing women, and cognitive interviews to establish good content validity. Construct validity, including structural validity, involved exploratory factor analyses to determine final item sets and confirmatory factor analysis; however explicit hypotheses and the extent to which results of testing hypotheses was unclear. Indices of how well the statistical models fit the data were not described in the 2017, 2018 or 2022 publications.

Studies of the PCMC tools also aimed to evaluate criterion validity based on the hypothesis that measures of global satisfaction, quality of care, and whether a woman would choose to return to a particular birth center for future deliveries and how the choice to return to care at a particular center would correlate with scores based on the PCMC tool. Global measures of satisfaction with care included satisfaction with maternity services, quality of care during delivery, and whether they would deliver again in the facility. Generally good bivariate correlation between PCMC items and satisfaction, quality of care, and potential future delivery in the given setting was reported based on regression analysis to test this hypothesis. While some authors studies of PCMC suggest that correlation between PCMC and these measures provides evidence of criterion validity, others evaluating maternal birth experience indicate it is not possible to formulate or test specific criterion validity hypotheses given the lack of an accepted, well defined “gold standard” comparator instrument for measuring women’s maternity care experience. Given this, we considered assessments of criterion validity to be indeterminant for PCMC scales.

The shortened, 13-item PCMC tool was developed and evaluated in women from Kenya, Ghana and India and demonstrated good content validity and internal consistency. Exploratory and confirmatory factor analyses suggest good construct, or structural validity, however confirmatory factor analysis did not meet thresholds for model fit indices based on published criteria. Notably, the shortened version does not include some items that may be important to RMC, such as confidentiality, presence of a birth companion, verbal and physical abuse, and factors associated with the facility environment, which potentially limits its applicability.
3. Results

3.3.3.2.3 PREM-OB

3.3.3.2.3.1 Brief Analysis
A fair-quality study from the U.S evaluated a proprietary Patient-Reported Experience Measure of Obstetric Racism (PREM-OB ScaleTM). The tool included three unidimensional scales to measure theoretical domains to quantify obstetric racism experienced during childbirth by Black birthing people. Pilot testing of the three-factor scale was completed by postpartum Black mothers and birthing people (n=806) who answered 7 to 31 items measuring experiences related to “racism,” “kinship,” and “humanity” using an online survey. The humanity scale had items most closely overlapping with components of RMC, specifically (1) safety and accountability; (2) autonomy; (3) communication and information exchange; and (4) empathy and humanity. Clinical and demographic characteristics of the pilot population were well described and included demographics, presence of a birthing partner, and type of delivery. Content validity, construct validity and internal consistency were evaluated. Descriptive information on item pool generation and item selection related to content validity was provided and factor analyses provided information on construct validity. The humanity scale demonstrated good internal consistency with a Cronbach’s $\alpha$ of 0.96. Study limitations included risk of selection bias and recall bias due to convenience sampling and timing of the survey. Details of the specific scale items, how they were scored, and related psychometric analyses were not reported. Additional details on the remaining items in the scales are not publicly available precluding the ability to effectively compare the three PREM-OB scale items with RMC measures as defined for this review. As with other included tools reporting criterion validity, evaluation of this measure is unclear in the absence of an agreed upon gold standard comparison measure.

3.3.3.2.4 Mother-Centered Prenatal Care

3.3.3.2.4.1 Brief Analysis
A poor-quality study from Hungary combined two tools into a single survey in Hungarian, and included questions addressing screening, prenatal care, birth care, postpartum care, care preferences, informal payments, select MADM tool items, and open-ended questions about the experience of care. Measures were poorly reported and provided very limited information on the target populations. Very limited information on content validation was provided for the Mother-Centered Prenatal Care scale (MCPC) and this was the only form of validation described. However, the tool included RMC related components such as consent and autonomy.
### 3. Results

#### Table 5. Summary of respectful maternity care themes and components in validated tools

<table>
<thead>
<tr>
<th>Theme</th>
<th>Components</th>
<th>CHOICES</th>
<th>DAQ</th>
<th>MORi</th>
<th>MADM</th>
<th>RMC Scale(s)</th>
<th>23i-RMC</th>
<th>QRMCQI</th>
<th>WPRMC</th>
<th>CEQ-2</th>
<th>MCPC</th>
<th>PCMC</th>
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<td>Free from bias and discrimination</td>
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Abbreviations: CEQ-2 = Revised Childbirth Experience Questionnaire; CHOICES = Childbirth Options, Information, and Person-Centered Explanation; DAQ = Disrespect and Abuse Questionnaire; MADM = Mothers Autonomy in Decision Making scale; MCPC = Mother-Centered Prenatal Care scale; MORi = Mothers on Respect Index; PCMC = person-centered maternity care; PREM-OB™ = Patient-reported Experience Measure of Obstetric Racism; RMC = respectful maternity care; QRMCQI = Quality of RMC Questionnaire in Iran; WPRMC = Women’s Perception-RMC
3. Results

3.4 Key Question 2. What is the effectiveness of RMC on maternal health and utilization outcomes?

One trial from Iran\textsuperscript{135} evaluated the effectiveness of RMC on the maternal health outcome of postpartum depression. No other trials or observational studies from higher income countries evaluated the effectiveness of RMC on any maternal health or utilization outcome.

3.4.1 Key Findings

- One RCT reported a significant reduction in postpartum depression at 6-8 weeks for women receiving RMC versus usual care. No other maternal clinical outcomes were reported.

3.4.2 Description of Included Studies

One fair-quality trial (moderate risk of bias [ROB]) from Iran\textsuperscript{135} (N=120) evaluated the effectiveness of RMC on postpartum depression. Included participants had a low-risk pregnancy, were enrolled during the first active stage of labor and the majority (81.7\%) were aged 20-39 years. Most of the study population (intervention vs. control) had a planned pregnancy (65\% vs 70\%), an induced vaginal delivery (63\% vs. 78\%) and were multiparous (60\% vs. 53\%), with no statistically significant differences between groups in baseline characteristics. RMC was implemented based on WHO recommendations\textsuperscript{79} and a validated 15-item scale with four components (friendly, abuse-free, timely, and discrimination-free care),\textsuperscript{128} with a focus on access to qualified and compassionate care, personal support, education, privacy, and effective communication. The comparison was routine care, which included a nonprivate birthing room, no additional education or information, and no engagement with research staff. The RCT was rated moderate ROB due to lack of blinding and unclear randomization methods (Appendix D).

3.4.3 Detailed Analysis

3.4.3.1 Postpartum Depression

Postpartum depression was measured using the Kurdish version of the Edinburgh Postpartum Depression scale (EPDS) at 6 to 8 weeks postpartum; EPDS scores \( \geq 10 \) indicated diagnosis of depressive disorder (Appendix C).

At 6-8 weeks postpartum, rates of postpartum depression as measured by EPDS were statistically significantly lower in women who received RMC versus usual care (20\% [11/55] vs. 50\% [27/54], \( p=0.001 \)). There were no significant differences in rates of postpartum depression in subgroup analyses based on participant characteristics, including mode of birth, planned pregnancy, neonatal intensive care unit admission, breastfeeding, family income, or age.

No other trials were identified to address this question and there were no studies from United States or countries with settings applicable to clinical practice in the United States.
3. Results

3.5 Key Question 3. What is the effectiveness of RMC on infant health outcomes?
No RCT or observational study meeting inclusion criteria evaluated the effectiveness of RMC on infant health outcomes.

3.6 Key Question 4. What is the effectiveness of strategies to implement RMC?
No RCT or observational study meeting inclusion criteria evaluated the effectiveness of strategies to implement RMC.
4. Discussion

4.1 Key Findings and Strength of Evidence

In this review we summarized research for identifying and defining respectful maternity care (RMC) and identifying the absence of RMC during childbirth, described as disrespect or abuse, and provided an evaluation of tools for measuring RMC. There was insufficient evidence to evaluate effective strategies for implementing RMC to improve outcomes in any population, regardless of risk for health disparities. However, through a comprehensive review process we were able to collect, synthesize, and evaluate the relevant literature to help define, identify, and measure RMC.

We identified RMC frameworks that have emerged as a result of a conceptual evolution in respectful maternity care. While these frameworks do not directly define teamwork or communication as an essential component of RMC, the concept of communication is well-represented through elements of shared decision making and the role of the birthing person in care decisions. Through an understanding of how and where these frameworks overlap, we propose a definition synthesizing the current body of thought, including input from experts (Box 1). Specifically, we define RMC as an approach to maternity care that honors the dignity, personhood, autonomy, and interests of birthing people, prevents disrespect, mistreatment, or abuse toward individuals who are utilizing maternal care services, and provides a practical paradigm for the delivery and receipt of peripartum care through a rights- and reproductive justice-based framework.

Box 1. Definition of respectful maternity care

An approach that:

1) Honors the dignity, personhood, autonomy, and preferences of birthing people
2) Prevents disrespect, mistreatment, or abuse toward individuals who are utilizing maternal care services
3) Provides a practical paradigm for the delivery and receipt of peripartum care through a rights- and reproductive justice-based framework
4) Includes standard elements of respectful care:
   - Freedom from abuse and violence
   - Consent
   - Privacy
   - Communication and shared decision making centered around the birthing person
   - Dignity and respect
   - Safety (safe care environment)
   - Justice

This definition includes promoting equitable access to evidence-based care while recognizing unique needs and preferences of birthing people and families, in addition to measurable actions to protect individuals from harm or mistreatment; providing care based on dignity and respect for autonomy; providing information to facilitate informed choices that are respected; supporting the agency of birthing people and their needs in the labor and delivery context; and facilitating
4. Discussion

connectedness between birthing people and their babies and families to recognize the importance of respect for and within the family unit. This also recognizes the ongoing need to identify and mitigate health systems factors that create conditions that lead to disrespect, racism, and/or obstetric violence.

In order to measure RMC, there must be a clear definition. Through our proposed definition of RMC that incorporates widely accepted frameworks, reliable methods to measure RMC can then be applied. Ten of twelve tools demonstrated fair to good internal and overall validity and reproducibility with most demonstrating good internal consistency (reliability), although no tool reported assessment of all dimensions of validity. Two tools had poor overall validity based on these dimensions. Based on this review, we identified clinical tools that measure RMC or RMC components and perform well based on psychometric measures. Inclusion of tools in this review does not imply endorsement, and no single validated tool stands out as the best measure of RMC.

The tools identified as having good validity to measure RMC incorporate themes of privacy, dignity, respect, autonomy, and communication or shared decision making. Our assessment was based on the general quality of the psychometric studies based on adapted criteria, the extent to which content validity, construct validity and internal consistency evaluations were documented in the population of interest for a given tool, as well as RMC components contained in the tool, and potential applicability to U.S. settings to suggest which tool(s) may be most appropriate for initial testing of RMC implementation efforts. The intrapartum version of Mothers Autonomy in Decision Making scale (MADM), Mothers on Respect Index (MORi)\textsuperscript{126} and Childbirth Options, Information, and Person-Centered Explanation (CHOICES) tools\textsuperscript{118} demonstrated good overall validity based on a select number of psychometric properties, evaluated many but not all of the essential components identified in RMC frameworks, and were most relevant to U.S. populations. The revised Childbirth Experience Questionnaire (CEQ-2) also demonstrated good overall validity for measuring childbirth experiences and includes components related to RMC, such as support, safety, and shared decision making. Table 5 highlights the tools’ overlapping themes based on comparable components.

Importantly, there is currently no gold standard for describing or measuring RMC, making a rigorous evaluation of validated tools challenging. While many tools have demonstrated good internal psychometric properties for measuring RMC in specific populations, further evaluation and application of these measures in U.S. populations is warranted prior to wholesale adoption of any given tool as a measure of RMC. Many of the measurement tools may be best described as promising preliminary evidence of validity and internal consistency to inform future approaches for evaluating RMC, but are not yet driven by clinical effectiveness, likely due to lack of a standard definition. A tool such as the Patient-reported Experience Measure of Obstetric Racism (PREM-OB) Scale\textsuperscript{TM} is one example of a tool that is tailored to better capture birthing experiences (specifically, obstetric racism and poor outcomes) among Black birthing people,\textsuperscript{106} and signals the need for tailored measures that capture the lived experiences of specific populations most at risk for disrespect. Further research is needed to evaluate these tools against a gold standard measure of RMC and to test whether implementation of RMC tools impact clinical and patient-centered outcomes.

4.2 Applicability

A number of issues could impact the applicability of our findings. First, 8 of 12 validated tools have been evaluated only in low- or middle-income countries (LMICs). Three were initially designed for use in LMIC but adapted to other settings.\textsuperscript{114,122,126} Few studies of validated tools
4. Discussion

provided adequate description of the patient demographics, pregnancy risks, complications, or details of the birth experience (mode of delivery, complications, use of augmentation), precluding characterization of target populations or the ability to assess applicability across diverse obstetrical care populations and settings in the United States. Studies that evaluated these factors suggest that, in at least in some populations, they may influence patient responses and the potential measurement of RMC and interventions intended to improve RMC. This limitation points to a need for additional evaluation and consideration of these factors as they may impact the application and interpretability of tool scores. Most tools that provided demographic information suggest that they were evaluated in low-risk pregnancies with few or no complications at birth, which may also limit applicability. Therefore, validating tools across settings and populations relevant to clinical practice in the United States, including among populations at risk for experiencing health disparities, would help further characterize the applicability of these findings.

4.3 Findings in Relation to What Is Already Known

There is a rich and multidisciplinary body of thought informing contemporary ideas about RMC. Many studies describe these RMC frameworks and their components but evidence on the effectiveness or implementation of RMC in “very high income” settings and those relevant to clinical practice in the United States is lacking. The majority of the literature on RMC is from cross-sectional studies conducted in LMICs that use various tools (Appendix C) to measure the prevalence of disrespect and abuse or RMC and were not eligible as evidence for this review. Overlapping themes identified in RMC frameworks highlight the agreement between frameworks to eliminate practices identified as disrespect or abuse, and initiatives to work toward healthcare systems and settings that focus on respectful care including privacy, dignity, respect, autonomy, and communication. Notably, these frameworks lack specific components of teamwork or communication but recognize elements of shared decision making. Applications in clinical settings relevant to the United States may be less focused on disrespect and abuse in maternity care, despite the presence of obstetric violence, racism, and stark disparities in rates of maternal morbidity and mortality in the United States. Additional studies have helped guide the identification of tools to measure childbirth experiences more broadly, including a review identifying instruments and measures to inform their evaluation. In this review, the psychometric properties related to content validity, construct validity and internal consistency of tools were evaluated to provide a general assessment of their overall validity. Most tools focused on RMC, while the remaining may have included relevant components. Consensus around a standard definition with clear performance measures is needed to help standardize implementation of care delivery in the United States to ensure RMC for all birthing people.

4.4 Implications for Clinical and Policy Decisions

Our review has implications for clinical and policy decision making. RMC has been described extensively throughout the literature and has become recognized in the obstetric community as a strategy to close important gaps in maternal health disparities, but there is not yet a gold standard for measuring, defining, or implementing RMC. Before the widespread implementation of a particular framework or measurement tool, additional testing as well as research on the effectiveness of RMC for improving outcomes is needed. This work is required both to determine if RMC might improve perinatal outcomes, but also to bring accountability to
4. Discussion

Patient care in the perinatal setting. Importantly, recent scholarship highlights policy, funding, workforce, and workplace systems issues as key contributors to disrespectful care. Supporting respectful care will require both attention to interactions between an individual birthing person and their care team as well as attention to the many systems influences shaping these interactions.

In the United States, there is an increasing awareness of maternal health disparities and urgent calls from professional organizations, advocates, and Federal programs for changes in healthcare delivery that improve safety, eliminate racism, and improve health outcomes for all birthing people. In June 2022, The White House released the “White House Blueprint for Addressing the Maternal Health Crisis.” This Blueprint describes priority level goals to address the maternal health crisis in the United States and describes existing initiatives that will meet the overarching goals. The Agency for Healthcare Research and Quality’s Safety Program in Perinatal Care is mentioned within the report, with the goal to train providers on how to deliver care that allows individuals to feel empowered to assert their rights and advocate for themselves, and enables providers to listen and trust their patients.

Our proposed definition (Box 1) is intended to help inform a care standard applicable at all levels of the health system to help bridge the gap between RMC conceptual models, theoretical frameworks, validated measures, and proposed implementation strategies. This definition incorporates input from experts, including Key Informant and Technical Expert Panel members, and reflects our synthesis of an extensive body of available literature describing critical components of RMC. This definition may require additional evaluation to reach consensus for broader implementation. Incorporating patient feedback into future refinements of this definition is critical. For RMC strategies to be adopted widely, respectful maternity care needs to be considered as a normative value for perinatal safety and culture.

Approaches to RMC must consider the rights of birthing people, the responsibility of members of the clinical team, and structural and systems dynamics in the context of promoting safe and healthy birthing spaces, rather than purely viewing RMC as a strategy to reduce the incidence of disrespectful care or mistreatment during childbirth. Given the evolution of rights-based frameworks that help define key elements and components to track and measure delivery of RMC, there is an opportunity to advance equity through an approach to maternity care that provides concrete measures of clinician or health system accountability using these components. Efforts to use these frameworks to facilitate implementation and measurement of the tools to measure RMC should consider the multiple factors that influence the receipt and delivery of RMC including patients, partners, clinicians, and healthcare systems, as well as the sociocultural influences that affect the patient experience (see Figure 4). The validated studies of tools identified in this review may inform the development of RMC performance measures to standardize and regulate data collection on RMC and improve care delivery for all birthing people. In the absence of a gold standard for RMC, lessons from evidence-based resources such as Association of Women’s Health and Obstetric Neonatal Nurses (AHWONN) guidelines may help inform training.

Importantly, as RMC implementation efforts are developed, potential obstacles must be considered. For example, lessons from the coronavirus disease 2019 (COVID-19) pandemic show that unanticipated changes to healthcare systems can impact care delivery, disrupt RMC efforts, and reveal limitations in the healthcare system. Recent changes in the post-Dobbs legal landscape have led to constraints on obstetric practice, which may further affect where and how maternity care is delivered and experienced. These experiences can be used to inform
4. Discussion

how to maintain safe and respectful practices in the face of stressors on the healthcare system, healthcare facilities, team dynamics, individual clinicians, and patients and their families. Alliance For Innovation On Maternal Health (AIM) program bundles have helped establish standards of care and best practices for handling obstetric emergencies and complications.\textsuperscript{142,143} For example, a recent study\textsuperscript{148} of quality improvement projects in Texas and Oklahoma evaluated the implementation of safety bundles for obstetric hemorrhage and severe hypertension and reported differences in adherence for rural versus urban hospitals. While the study describes the addition of RMC as the “5th R” to AIM’s existing 4R framework, it stops short of providing a clear definition of RMC or how to implement and evaluate RMC. The study’s depiction of RMC broadly describes three of the domains in RMC frameworks described throughout the literature (equity, support, communication), but an operational definition of RMC is not provided. In addition to highlighting variability in clinical performance for obstetric emergencies, the study also underscores the need for additional efforts to define RMC and describe how to measure it. It is important that future RMC scholarship explicitly identify the RMC conceptual framework, definitions, and instruments used, thoughtfully relate current scholarship to prior scholarship, and build on the work of existing and prior RMC leaders, particularly those who have been leading health equity,\textsuperscript{72} shared decision-making\textsuperscript{33,34} research, and consent research.\textsuperscript{27,116,117}

In our assessment of tools to measure RMC, there was a range of approaches for measuring the childbirth experience and RMC more explicitly. Across various tools there were overlapping RMC components that have been validated in studies (\textbf{Tables 4A and 4B}) and could help inform methods to measure the effectiveness of RMC implementation in systems to facilitate monitoring and measurement of RMC more broadly. The major gap in this review is the lack of studies evaluating interventions that implement RMC in maternal care settings and insufficient data to evaluate RMC effectiveness. Whether tools can be applied to measure and reduce harms, improve communication and safety, or help define and promote RMC is still unclear, as evidence on effectiveness of strategies to implement RMC continues to emerge.

There is growing awareness that obstetric emergencies can lead to traumatic birth experiences for patients.\textsuperscript{149} Despite the comprehensive approach to describe RMC and its components, identified RMC frameworks do not currently address the impact of trauma on respect, but this could be incorporated in future efforts to define and measure RMC. Consideration of trauma could draw from two bodies of scholarship that describe the high prevalence and wide physical and psychological impacts of trauma,\textsuperscript{116,117} and the impact of re-traumatization or primary traumatization during childbearing.\textsuperscript{116,117} For example, one Spanish woman in 2020 and another in 2022 pursued legal remedy to hospital-based obstetric violence as a violation of their rights under articles 2, 3, 5 and 12 of the Convention on the Elimination of All Forms of Discrimination against Women.\textsuperscript{108,109} Notably, American College of Obstetrics and Gynecology encourages care teams to understand the prevalence and impact of prior and potential trauma on the birth experience.\textsuperscript{150}

The United Nations 2019 Special Rapporteur on violence against women, also suggests changes in systems to address RMC through the recognition of “mistreatment and violence against women in reproductive health services with a focus on childbirth and obstetric violence.”\textsuperscript{107} By targeting structural issues that must be confronted to mitigate or eliminate reproductive and childbirth mistreatment and violence this work complements systems recommendations noted in the 2016 the Black Mamas Matter Alliance framework. For example, the conditions and constraints of the health system have been cited as “root causes of
4. Discussion

mistreatment and violence against women during childbirth and may include insufficient funding for women’s healthcare research and care, poor workforce conditions, and gender imbalance among maternity care providers. The right to refuse care is also not addressed by any framework but should be considered as part of the guidance for applying and expanding existing frameworks. Further, some RMC frameworks have incorporated or adapted aspects of the landmark frameworks to fit a specific healthcare system, culture, or care environment. However, many of these adaptations failed to incorporate concepts of teamwork and communication from the clinician or system perspective. For example, the person-centered maternity care (PCMC) tool, derived from the person-centered care (PCC) framework, includes a healthcare facility domain, and Bohren et al. recognizes system/facility culture, but neither specifically describe teamwork and communication (amongst providers, staff, patients and families) as an essential element of RMC. Thus, future RMC scholarship could consider trauma, the right to refuse care, and provider/systems teamwork and communication as elements to consider or evaluate.

4.5 Limitations of the Systematic Review Process

We excluded non-English language articles and did not search for studies published only as abstracts. In addition to the limitations of the evidence base described below, there are limitations to the review process and the decisions, tools, and methods available for systematic reviews.

We excluded noncomparative studies for the Contextual Question and cross-sectional studies reporting only frequency data. Although nonrandomized studies of interventions may be included to augment the evidence base, limitations inherent to nonrandomized study designs (e.g., threats to internal validity such as selection bias, issues with confounding, or lack of comparison groups) generally outweigh any potential value of supporting randomized controlled trial (RCT) evidence demonstrating effectiveness and applicability of interventions.

Given the lack of comparative effectiveness studies or RCTs, we were unable to conduct quantitative synthesis, or meta-analyses. This heterogeneity is also challenging for qualitative synthesis of the studies of validated tools.

4.6 Limitations of Evidence Base

Overall evidence is lacking to inform the effectiveness of RMC on maternal or infant outcomes. Few studies specifically address professional training, or specific procedures or policies to inform strategies around teamwork or communication. Most limitations of the evidence base are related to the lack of relevant studies to evaluate interventions of RMC effectiveness, the relative weakness of study designs used in this field, which were mostly cross-sectional, the rigor with which the studies were conducted, and the incomplete reporting of key outcomes. This review was limited to the intrapartum and postpartum periods, and some of the measures were not specific to this time period only.

We identified one trial that evaluated the effectiveness of RMC on any clinical outcome. The RMC intervention included effective communication and RMC processes such as information, friendly and abuse-free care, timely care, and nondiscrimination. While this study is from a middle-income country, it provides a signal that RMC interventions could improve postpartum depression compared with usual care, but evidence is insufficient to evaluate any other clinical or patient reported outcomes.
4. Discussion

There were limitations to the evidence around tools to measure RMC. This review identified 24 validation studies of 12 tools that have been applied across a variety of clinical settings throughout the world (Appendix Table C-1). Most were reported through cross-sectional analyses that provided examples of their application but were not guided by a gold standard for comparison, nor were tools assessed across all potential dimensions of validity. Most studies used convenience sampling including recruitment via internet and social media, which may lead to selection bias. The timing of tool administration varied substantially across tools and studies, leading to potential recall bias for tools that were administered at longer time frames since birth or that may have included experiences from multiple or prior births. This, together with concern about selection bias, is an important consideration for interpreting the properties and scoring of the tools. Lack of a gold standard or definition for RMC is a problem for developing appropriate tools. And, despite a standardized definition or implementation of an applicable tool, it may perform differently in different populations or settings.

4.7 Conclusions

RMC frameworks with overlapping components, themes, and definitions are well described in the literature, but consensus around one operational definition is needed. Validated tools to measure RMC perform well based on psychometric measures but have been subject to limited evaluation. A reliable metric informed by a standard definition could lead to further evaluation and implementation in U.S. settings. Evidence is currently lacking on the effectiveness of strategies to implement RMC to improve any maternal or infant health outcome.
References


## Abbreviations and Acronyms

<table>
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<tr>
<th>Abbreviation</th>
<th>Definition</th>
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<tbody>
<tr>
<td>23i-RMC</td>
<td>23-item RMC scale</td>
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<tr>
<td>AIM</td>
<td>Alliance For Innovation on Maternal Health</td>
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<tr>
<td>AWHONN</td>
<td>Association of Women’s Health and Obstetric Neonatal Nurses</td>
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<tr>
<td>CEQ</td>
<td>Childbirth Experience Questionnaire</td>
</tr>
<tr>
<td>CEQ-2</td>
<td>Revised Childbirth Experience Questionnaire</td>
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<td>CHOICES</td>
<td>Childbirth Options, Information, and Person-Centered Explanation</td>
</tr>
<tr>
<td>COSMIN</td>
<td>COnsensus-based Standards for the selection of health Measurement Instruments</td>
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<tr>
<td>COVID-19</td>
<td>Coronavirus disease 2019</td>
</tr>
<tr>
<td>CQ</td>
<td>Contextual Question</td>
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<tr>
<td>D&amp;A</td>
<td>Disrespect and Abuse</td>
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<tr>
<td>DAQ</td>
<td>Disrespect and Abuse Questionnaire</td>
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<tr>
<td>EPC</td>
<td>Evidence-based Practice Center</td>
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<td>EPDS</td>
<td>Edinburgh Postpartum Depression scale</td>
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<tr>
<td>HDI</td>
<td>United Nations Human Development Index</td>
</tr>
<tr>
<td>HHS</td>
<td>U.S. Department of Health and Human Services</td>
</tr>
<tr>
<td>KI</td>
<td>Key Informant</td>
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<tr>
<td>KQ</td>
<td>Key Question</td>
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<tr>
<td>LMIC</td>
<td>Low- or middle-income countries</td>
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<td>MADM</td>
<td>Mothers Autonomy in Decision Making scale</td>
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<td>MCHIP</td>
<td>Maternal and Child Health Integrated Program</td>
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<td>MCPC</td>
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<tr>
<td>MORi</td>
<td>Mothers on Respect Index</td>
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<td>NICU</td>
<td>Neonatal intensive care unit</td>
</tr>
<tr>
<td>NRSI</td>
<td>Nonrandomized studies of interventions</td>
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<tr>
<td>NR</td>
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<td>Person-centered maternity care</td>
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<td>PICOTS</td>
<td>Population, intervention, comparisons, outcomes, timing, settings, and study designs</td>
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<td>PREM-OB</td>
<td>Patient-reported Experience Measure of Obstetric Racism</td>
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<td>QRMCQI</td>
<td>Quality of RMC Questionnaire in Iran</td>
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<td>RCT</td>
<td>Randomized controlled trial</td>
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<td>Respectful maternity care</td>
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<td>ROB</td>
<td>Risk of bias</td>
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<td>SD</td>
<td>Standard deviation</td>
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<tr>
<td>SOE</td>
<td>Strength of evidence</td>
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<tr>
<td>SPCC</td>
<td>Society for the Protection and Care of Children</td>
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<tr>
<td>TEP</td>
<td>Technical Expert Panel</td>
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<tr>
<td>Abbreviation</td>
<td>Definition</td>
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<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
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<td>WHO</td>
<td>World Health Organization</td>
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<tr>
<td>WP-RMC</td>
<td>Women’s Perception-RMC</td>
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Appendix A. Methods

Search Strategy
Database: Ovid MEDLINE(R) ALL <1946 to July 13, 2023>

Search Strategy (Comparative):
--------------------------------------------------------------------------------
1    ((respect* or disrespect*) adj3 (care or caring* or cares or cared) adj5 (matern* or mother*)).mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (420)
2    exp Maternal Health Services/ (56601)
3    ((respect* or disrespect*) adj5 (care or caring* or cares or cared or wish* or prefer* or opinion* or desir* or patient* or matern* or mother*).mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (189675)
4    2 and 3 (1033)
5    exp Human Rights/ (153674)
6    2 and 5 (975)
7    exp "Attitude of Health Personnel"/ (168547)
8    6 and 7 (130)
9    exp Professional-Patient Relations/ (147841)
10   6 and 9 (132)
11   exp Patient-Centered Care/ (23603)
12   2 and 11 (350)
13   exp Culturally Competent Care/ (2064)
14   exp cultural competency/ or exp cultural diversity/ (18253)
15   13 or 14 (20004)
16   2 and 15 (278)
17   1 or 4 or 8 or 10 or 12 or 16 (1911)
18   exp Labor, Obstetric/ (48278)
19   17 and 18 (81)
20   exp Parturition/ (20928)
21   17 and 20 (286)
22   exp Peripartum Period/ (1656)
23   17 and 22 (6)
24   exp postpartum period/ (73576)
25   17 and 24 (67)
26   19 or 21 or 23 or 25 (406)
27   (obstet* adj5 (labor* or deliver*).mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (87722)
28   17 and 27 (445)
29   26 or 28 (618)
30  (((giv* or gave or vagin* or experien*) adj3 birth*) or child birth* or childbirth* or
peripartum* or peri-partum* or postpartum* or post-partum or c?esarean* or c-section* or
((labor* or deliver* or birth* or parturit*) adj5 (servic* or room* or suite* or center* or plan
or plans or planned or planning or prefer* or desir* or want* or opinion* or attitud* or
expect*)).mp. [mp=title, book title, abstract, original title, name of substance word, subject
heading word, floating sub-heading word, keyword heading word, organism supplementary
concept word, protocol supplementary concept word, rare disease supplementary concept
word, unique identifier, synonyms] (283386)
31  17 and 30 (927)
32  19 or 26 or 29 or 31 (1038)
33  17 not 32 (873)
34  limit 32 to (systematic reviews pre 2019 or systematic reviews) (81)
35  limit 33 to (systematic reviews pre 2019 or systematic reviews) (56)
36  limit 32 to (adaptive clinical trial or controlled clinical trial or pragmatic clinical trial or
randomized controlled trial) (32)
37  36 not 34 (31)
38  limit 33 to (adaptive clinical trial or controlled clinical trial or pragmatic clinical trial or
randomized controlled trial) (22)
39  38 not 35 (21)
40  exp Epidemiologic Studies/ (3039056)
41  exp "Outcome and Process Assessment, Health Care"/ (1339813)
42  exp prognosis/ (1877342)
43  exp comparative study/ (1911770)
44  40 or 41 or 42 or 43 (5668297)
45  32 and 44 (348)
46  45 not (34 or 37) (319)
47  33 and 44 (230)
48  47 not (35 or 39) (214)
49  32 not (34 or 37 or 46) (607)
50  33 not (35 or 39 or 49) (796)

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Database: Ovid MEDLINE(R) ALL <1946 to July 13, 2023>

Search Strategy (RCT CCTs):

1  ((respect* or disrespect*) adj3 (care or caring* or cares or cared) adj5 (matern* or
mother*)).mp. [mp=title, book title, abstract, original title, name of substance word, subject
heading word, floating sub-heading word, keyword heading word, organism supplementary
concept word, protocol supplementary concept word, rare disease supplementary concept
word, unique identifier, synonyms] (420)
2  exp Maternal Health Services/ (56601)
3  ((respect* or disrespect*) adj5 (care or caring* or cares or cared or wish* or prefer* or
opinion* or desir* or patient* or matern* or mother*)).mp. [mp=title, book title, abstract,
original title, name of substance word, subject heading word, floating sub-heading word,
keyword heading word, organism supplementary concept word, protocol supplementary
concept word, unique identifier, synonyms] (283386)
concept word, rare disease supplementary concept word, unique identifier, synonyms] (189675)
4  2 and 3 (1033)
5  exp Human Rights/ (153674)
6  2 and 5 (975)
7  exp "Attitude of Health Personnel"/ (168547)
8  6 and 7 (130)
9  exp Professional-Patient Relations/ (147841)
10  6 and 9 (132)
11  exp Patient-Centered Care/ (23603)
12  2 and 11 (350)
13  exp Culturally Competent Care/ (2064)
14  exp cultural competency/ or exp cultural diversity/ (18253)
15  13 or 14 (20004)
16  2 and 15 (278)
17  1 or 4 or 8 or 10 or 12 or 16 (1911)
18  exp Labor, Obstetric/ (48278)
19  17 and 18 (81)
20  exp Parturition/ (20928)
21  17 and 20 (286)
22  exp Peripartum Period/ (1656)
23  17 and 22 (6)
24  exp postpartum period/ (73576)
25  17 and 24 (67)
26  19 or 21 or 23 or 25 (406)
27  (obstet* adj5 (labor* or deliver*)).mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (87722)
28  17 and 27 (445)
29  26 or 28 (618)
30  (((giv* or gave or vagin* or experien*) adj3 birth*) or child birth* or childbirth* or peripartum* or peri-partum* or postpartum* or post-partum or c?sarean* or c-section* or ((labor* or deliver* or birth* or parturit*) adj5 (servic* or room* or suite* or center* or plan or plans or planned or planning or prefer* or desir* or want* or opinion* or attitud* or expect*))).mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (283386)
31  17 and 30 (927)
32  19 or 26 or 29 or 31 (1038)
33  17 not 32 (873)
34  limit 32 to (systematic reviews pre 2019 or systematic reviews) (81)
35  limit 33 to (systematic reviews pre 2019 or systematic reviews) (56)
36  limit 32 to (adaptive clinical trial or controlled clinical trial or pragmatic clinical trial or randomized controlled trial) (32)
37 36 not 34 (31)
38 limit 33 to (adaptive clinical trial or controlled clinical trial or pragmatic clinical trial or randomized controlled trial) (22)
39 38 not 35 (21)
40 exp Epidemiologic Studies/ (3039056)
41 exp "Outcome and Process Assessment, Health Care"/ (1339813)
42 exp prognosis/ (1877342)
43 exp comparative study/ (1911770)
44 40 or 41 or 42 or 43 (5668297)
45 32 and 44 (230)
46 45 not (34 or 37) (319)
47 33 and 44 (230)
48 47 not (35 or 39) (214)
49 32 not (34 or 37 or 46) (607)
50 33 not (35 or 39 or 49) (796)

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Database: Ovid MEDLINE(R) ALL <1946 to July 13, 2023>
Search Strategy (Remainder):
--------------------------------------------------------------------------------
1 ((respect* or disrespect*) adj3 (care or caring* or cares or cared) adj5 (matern* or mother*)).mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (420)
2 exp Maternal Health Services/ (56601)
3 ((respect* or disrespect*) adj5 (care or caring* or cares or cared or wish* or prefer* or opinion* or desir* or patient* or matern* or mother*)).mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (189675)
4 2 and 3 (1033)
5 exp Human Rights/ (153674)
6 2 and 5 (975)
7 exp "Attitude of Health Personnel"/ (168547)
8 6 and 7 (130)
9 exp Professional-Patient Relations/ (147841)
10 6 and 9 (132)
11 exp Patient-Centered Care/ (23603)
12 2 and 11 (350)
13 exp Culturally Competent Care/ (2064)
14 exp cultural competency/ or exp cultural diversity/ (18253)
15 13 or 14 (20004)
16 2 and 15 (278)
17  1 or 4 or 8 or 10 or 12 or 16 (1911)
18  exp Labor, Obstetric/ (48278)
19  17 and 18 (81)
20  exp Parturition/ (20928)
21  17 and 20 (286)
22  exp Peripartum Period/ (1656)
23  17 and 22 (6)
24  exp postpartum period/ (73576)
25  17 and 24 (67)
26  19 or 21 or 23 or 25 (406)
27  (obstet* adj5 (labor* or deliver*)).mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (87722)
28  17 and 27 (445)
29  26 or 28 (618)
30  (((giv* or gave or vagin* or experien*) adj3 birth*) or child birth* or childbirth* or peripartum* or peri-partum* or postpartum* or post-partum or c?esarean* or c-section* or ((labor* or deliver* or birth* or parturit*) adj5 (servic* or room* or suite* or center* or plan or plans or planned or planning or prefer* or desir* or want* or opinion* or attitud* or expect*)).mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (283386)
31  17 and 30 (927)
32  19 or 26 or 29 or 31 (1038)
33  17 not 32 (873)
34  limit 32 to (systematic reviews pre 2019 or systematic reviews) (81)
35  limit 33 to (systematic reviews pre 2019 or systematic reviews) (56)
36  limit 32 to (adaptive clinical trial or controlled clinical trial or pragmatic clinical trial or randomized controlled trial) (32)
37  36 not 34 (31)
38  limit 33 to (adaptive clinical trial or controlled clinical trial or pragmatic clinical trial or randomized controlled trial) (22)
39  38 not 35 (21)
40  exp Epidemiologic Studies/ (3039056)
41  exp "Outcome and Process Assessment, Health Care"/ (1339813)
42  exp prognosis/ (1877342)
43  exp comparative study/ (1911770)
44  40 or 41 or 42 or 43 (5668297)
45  32 and 44 (348)
46  45 not (34 or 37) (319)
47  33 and 44 (230)
48  47 not (35 or 39) (214)
49  32 not (34 or 37 or 46) (607)
50  33 not (35 or 39 or 49) (796)
Database: Ovid MEDLINE(R) ALL <1946 to July 13, 2023>
Search Strategy (SRs):
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1    ((respect* or disrespect*) adj3 (care or caring* or cares or cared) adj5 (matern* or
mother*)).mp. [mp=title, book title, abstract, original title, name of substance word, subject
heading word, floating sub-heading word, keyword heading word, organism supplementary
concept word, protocol supplementary concept word, rare disease supplementary concept
word, unique identifier, synonyms] (420)
2    exp Maternal Health Services/ (56601)
3    ((respect* or disrespect*) adj5 (care or caring* or cares or cared or wish* or prefer* or
opinion* or desir* or patient* or matern* or mother*)).mp. [mp=title, book title, abstract,
original title, name of substance word, subject heading word, floating sub-heading word,
keyword heading word, organism supplementary concept word, protocol supplementary
concept word, rare disease supplementary concept word, unique identifier, synonyms]
(189675)
4    2 and 3 (1033)
5    exp Human Rights/ (153674)
6    2 and 5 (975)
7    exp "Attitude of Health Personnel"/ (168547)
8    6 and 7 (130)
9    exp Professional-Patient Relations/ (147841)
10   6 and 9 (132)
11   exp Patient-Centered Care/ (23603)
12   2 and 11 (350)
13   exp Culturally Competent Care/ (2064)
14   exp cultural competency/ or exp cultural diversity/ (18253)
15   13 or 14 (20004)
16   2 and 15 (278)
17   1 or 4 or 8 or 10 or 12 or 16 (1911)
18   exp Labor, Obstetric/ (48278)
19   17 and 18 (81)
20   exp Parturition/ (20928)
21   17 and 20 (286)
22   exp Peripartum Period/ (1656)
23   17 and 22 (6)
24   exp postpartum period/ (73576)
25   17 and 24 (67)
26   19 or 21 or 23 or 25 (406)
27   (obstet* adj5 (labor* or deliver*)).mp. [mp=title, book title, abstract, original title, name
of substance word, subject heading word, floating sub-heading word, keyword heading word,
organism supplementary concept word, protocol supplementary concept word, rare disease
supplementary concept word, unique identifier, synonyms] (87722)
28   17 and 27 (445)
29  26 or 28 (618)
30  (((giv* or gave or vagin* or experien*) adj3 birth*) or child birth* or childbirth* or peripartum* or peri-partum* or postpartum* or post-partum or c'esarean* or c-section* or ((labor* or deliver* or birth* or parturit*) adj5 (servic* or room* or suite* or center* or plan or plans or planned or planning or prefer* or desir* or want* or opinion* or attitud* or expect*))).mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (283386)
31  17 and 30 (927)
32  19 or 26 or 29 or 31 (1038)
33  17 not 32 (873)
34  limit 32 to (systematic reviews pre 2019 or systematic reviews) (81)
35  limit 33 to (systematic reviews pre 2019 or systematic reviews) (56)
36  limit 32 to (adaptive clinical trial or controlled clinical trial or pragmatic clinical trial or randomized controlled trial) (32)
37  36 not 34 (31)
38  limit 33 to (adaptive clinical trial or controlled clinical trial or pragmatic clinical trial or randomized controlled trial) (22)
39  38 not 35 (21)
40  exp Epidemiologic Studies/ (3039056)
41  exp "Outcome and Process Assessment, Health Care"/ (1339813)
42  exp prognosis/ (1877342)
43  exp comparative study/ (1911770)
44  40 or 41 or 42 or 43 (5668297)
45  32 and 44 (348)
46  45 not (34 or 37) (319)
47  33 and 44 (230)
48  47 not (35 or 39) (214)
49  32 not (34 or 37 or 46) (607)
50  33 not (35 or 39 or 49) (796)

Database: Ovid MEDLINE(R) ALL <1946 to July 13, 2023>
Search Strategy (Epi Outcome Comparative):
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1  ((respect* or disrespect*) adj3 (care or caring* or cares or cared) adj5 (matern* or mother*)).mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (420)
2  exp Maternal Health Services/ (56601)
3  ((respect* or disrespect*) adj5 (care or caring* or cares or cared or wish* or prefer* or opinion* or desir* or patient* or matern* or mother*)).mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word,
keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (189675)
4  2 and 3 (1033)
5  exp Human Rights/ (153674)
6  2 and 5 (975)
7  exp "Attitude of Health Personnel"/ (168547)
8  6 and 7 (130)
9  exp Professional-Patient Relations/ (147841)
10  6 and 9 (132)
11  exp Patient-Centered Care/ (23603)
12  2 and 11 (350)
13  exp Culturally Competent Care/ (2064)
14  exp cultural competency/ or exp cultural diversity/ (18253)
15  13 or 14 (20004)
16  2 and 15 (278)
17  1 or 4 or 8 or 10 or 12 or 16 (1911)
18  exp Labor, Obstetric/ (48278)
19  17 and 18 (81)
20  exp Parturition/ (20928)
21  17 and 20 (286)
22  exp Peripartum Period/ (1656)
23  17 and 22 (6)
24  exp postpartum period/ (73576)
25  17 and 24 (67)
26  19 or 21 or 23 or 25 (406)
27  (obstet* adj5 (labor* or deliver*)).mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (87722)
28  17 and 27 (445)
29  26 or 28 (618)
30  (((giv* or gave or vagin* or experien*) adj3 birth*) or child birth* or childbirth* or peripartum* or peri-partum* or postpartum* or post-partum or c?esarean* or c-section* or ((labor* or deliver* or birth* or parturit*) adj5 (servic* or room* or suite* or center* or plan or plans or planned or planning or prefer* or desir* or want* or opinion* or attitud* or expect*))).mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (283386)
31  17 and 30 (927)
32  19 or 26 or 29 or 31 (1038)
33  17 not 32 (873)
34  limit 32 to (systematic reviews pre 2019 or systematic reviews) (81)
35  limit 33 to (systematic reviews pre 2019 or systematic reviews) (56)
36  limit 32 to (adaptive clinical trial or controlled clinical trial or pragmatic clinical trial or randomized controlled trial) (32)
37  36 not 34 (31)
38  limit 33 to (adaptive clinical trial or controlled clinical trial or pragmatic clinical trial or randomized controlled trial) (22)
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40  exp Epidemiologic Studies/ (3039056)
41  exp "Outcome and Process Assessment, Health Care"/ (1339813)
42  exp prognosis/ (1877342)
43  exp comparative study/ (1911770)
44  40 or 41 or 42 or 43 (5668297)
45  32 and 44 (348)
46  45 not (34 or 37) (319)
47  33 and 44 (230)
48  47 not (35 or 39) (214)
49  32 not (34 or 37 or 46) (607)
50  33 not (35 or 39 or 49) (796)

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Database: CINAHL

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<td>EBSCOhost Research Databases</td>
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A-9
birth*" OR childbirth* OR peripartum* OR peri-partum* OR postpartum* OR post-partum OR cesarean* OR c-section* OR ((labor* OR deliver* OR birth* OR parturit*) N5 (servic* OR room* OR suite* OR center* OR plan OR plans OR planned OR planning OR prefer* OR desir* OR want* OR opinion* OR attitud* OR expect*))

Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - CINAHL Plus with Full Text 292,496
S25 (obstet* N5 (labor* OR deliver*))

Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - CINAHL Plus with Full Text 13,497
S24 S2 AND S13 AND S22

Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - CINAHL Plus with Full Text 287
S23 S21 AND S22

Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - CINAHL Plus with Full Text 26,963
S21 S1 OR S20

Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - CINAHL Plus with Full Text 1,662
S20 S2 AND S19

Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - CINAHL Plus with Full Text 317
S19 S12 OR S18

Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - CINAHL Plus with Full Text 11,952
S18 S13 AND S17

Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - CINAHL Plus with Full Text 9,967
S17 S14 OR S15 OR S16

Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - CINAHL Plus with Full Text 1,138,966
S16  (MH "Patient Care Plans+")  Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase  Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - CINAHL Plus with Full Text 12,495
S15  (MH "Health Care Delivery+")  Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase  Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - CINAHL Plus with Full Text 397,263
S14  (MH "Patient Care+")  Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase  Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - CINAHL Plus with Full Text 902,130
S13  S9 OR S10 OR S11  Expanders - Apply equivalent subjects
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Search Screen - Advanced Search
Database - CINAHL Plus with Full Text 31,528
S12  (MH "Transcultural Care")  Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase  Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - CINAHL Plus with Full Text 3,331
S11  (MH "Cultural Competence")  Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase  Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - CINAHL Plus with Full Text 11,452
S10  (MH "Cultural Bias") OR (MH "Cultural Sensitivity")  Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase  Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - CINAHL Plus with Full Text 8,522
S9  (MH "Cultural Diversity")  Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase  Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - CINAHL Plus with Full Text 34,851
S8  (MH "Patient Centered Care")  Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase  Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - CINAHL Plus with Full Text 15,721
S7  (MH "Professional-Patient Relations+")  Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase  Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - CINAHL Plus with Full Text 103,648
S6  (MH "Attitude of Health Personnel+")  Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase  Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - CINAHL Plus with Full Text 119,031
S5 (MH "Human Rights") Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - CINAHL Plus with Full Text 104,614
S4 S2 AND S3 Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - CINAHL Plus with Full Text 2,656
S3 ((respect* OR disrespect*) N5 (care OR caring* OR cares OR cared OR wish* OR prefer* OR opinion* OR desir* OR patient* OR matern* OR mother*)) Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - CINAHL Plus with Full Text 310,455
S2 (MH "Maternal Health Services") Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - CINAHL Plus with Full Text 36,419
S1 ((respect* OR disrespect*) N3 ((matern* or mother*) n2 (care OR caring* OR cares OR cared)) Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database: EMBASE
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((((((respect* OR disrespect*) NEAR/3 (care OR caring* OR cares OR cared) NEAR/5 (matern* OR mother*) OR (((respect* OR disrespect*) NEAR/3 (care OR caring* OR cares OR cared) NEAR/5 (matern* OR mother*) OR (((maternal health service'/exp OR 'maternal care'/exp) OR 'obstetric procedure'/exp) AND (respect* OR disrespect*) NEAR/5 (care OR caring* OR cares OR cared OR wish* OR prefer* OR opinion* OR desir* OR patient* OR matern* OR mother*))) AND (human rights'/exp OR 'human rights abuse'/exp)) OR (((respect* OR disrespect*) NEAR/3 (care OR caring* OR cares OR cared) NEAR/5 (matern* OR mother*) OR (((maternal health service'/exp OR 'maternal care'/exp) OR 'obstetric procedure'/exp) AND (respect* OR disrespect*) NEAR/5 (care OR caring* OR cares OR cared OR wish* OR prefer* OR opinion* OR desir* OR patient* OR matern* OR mother*))) AND 'health personnel attitude'/exp) OR (((respect* OR disrespect*) NEAR/3 (care OR caring* OR cares OR cared) NEAR/5 (matern* OR mother*) OR (((maternal health service'/exp OR 'maternal care'/exp) OR 'obstetric procedure'/exp) AND (respect* OR disrespect*) NEAR/5 (care OR caring* OR cares OR cared OR wish* OR prefer* OR opinion* OR desir* OR patient* OR matern* OR mother*))) AND 'professional-patient relationship'/exp) OR (((respect* OR disrespect*) NEAR/3 (care OR caring* OR cares OR cared) NEAR/5 (matern* OR mother*) OR (((maternal health service'/exp OR 'maternal care'/exp) OR 'obstetric procedure'/exp) AND (respect* OR disrespect*) NEAR/5 (care OR caring* OR cares OR cared OR wish* OR prefer* OR opinion* OR desir* OR patient* OR matern* OR mother*))) AND (patient* NEAR/2 center* NEAR/5

A-12
care OR patient* NEAR/2 center* NEAR/5 treat* OR patient* NEAR/2 center* NEAR/5
therap* OR patient* NEAR/2 center* NEAR/5 interven* OR patient* NEAR/2 center* NEAR/5
cares OR patient* NEAR/2 center* NEAR/5 cared OR patient* NEAR/2 center* NEAR/5
caring) OR (((respect* OR disrespect*) NEAR/3 (care OR caring* OR cares OR cared)
NEAR/5 (matern* OR mother*) OR (((maternal health service'/exp OR 'maternal care'/exp OR
'obstetric procedure'/exp) AND (respect* OR disrespect*) NEAR/5 (care OR caring* OR cares
OR cared OR wish* OR prefer* OR opinion* OR desir* OR patient* OR matern* OR
mother*))))) AND ('transcultural care'/exp OR 'cultural competence'/exp OR 'cultural
sensitivity'/exp OR 'ethnic or racial aspects'/exp OR 'cultural diversity'/exp OR 'race
relation'/exp)) AND ('childbirth'/exp OR ('perinatal period'/exp OR 'postnatal care'/exp OR
'perinatal care'/exp)) OR (((respect* OR disrespect*) NEAR/3 (care OR caring* OR cares OR
cared) NEAR/5 (matern* OR mother*) OR (((maternal health service'/exp OR 'maternal care'
exp OR 'obstetric procedure'/exp) AND (respect* OR disrespect*) NEAR/5 (care OR caring* OR cares
OR cared OR wish* OR prefer* OR opinion* OR desir* OR patient* OR matern* OR
mother*))) AND (human rights'/exp OR 'human rights abuse'/exp)) OR (((respect* OR
disrespect*) NEAR/3 (care OR caring* OR cares OR cared) NEAR/5 (matern* OR mother*) OR
(((maternal health service'/exp OR 'maternal care'/exp OR 'obstetric procedure'/exp) AND
(respect* OR disrespect*) NEAR/5 (care OR caring* OR cares OR cared OR wish* OR prefer*
OR opinion* OR desir* OR patient* OR matern* OR mother*))))) AND 'health personnel attitude'/exp)
OR (((respect* OR disrespect*) NEAR/3 (care OR caring* OR cares OR cared) NEAR/5 (matern*
OR mother*) OR (((maternal health service'/exp OR 'maternal care'/exp OR 'obstetric
procedure'/exp) AND (respect* OR disrespect*) NEAR/5 (care OR caring* OR cares OR
cared) NEAR/5 (matern* OR mother*) OR (((maternal health service'/exp OR 'maternal
care'/exp OR 'obstetric procedure'/exp) AND (respect* OR disrespect*) NEAR/5 (care OR
caring* OR cares OR cared OR wish* OR prefer* OR opinion* OR desir* OR patient* OR
matern* OR mother*))))) AND 'professional-patient relationship'/exp) OR (((respect* OR
disrespect*) NEAR/3 (care OR caring* OR cares OR cared) NEAR/5 (matern* OR mother*) OR
(((maternal health service'/exp OR 'maternal care'/exp OR 'obstetric procedure'/exp) AND
(respect* OR disrespect*) NEAR/5 (care OR caring* OR cares OR cared OR wish* OR prefer*
OR opinion* OR desir* OR patient* OR matern* OR mother*))))) AND 'obstetric'
OR patient* NEAR/2 center* NEAR/5 treat* OR patient* NEAR/2 center* NEAR/5
cares OR patient* NEAR/2 center* NEAR/5 cared OR patient* NEAR/2 center* NEAR/5
caring) OR (((respect* OR disrespect*) NEAR/3 (care OR caring* OR cares OR cared)
NEAR/5 (matern* OR mother*) OR (((maternal health service'/exp OR 'maternal care'
exp OR 'obstetric procedure'/exp) AND (respect* OR disrespect*) NEAR/5 (care OR caring* OR cares
OR cared OR wish* OR prefer* OR opinion* OR desir* OR patient* OR matern* OR
mother*))) AND (human rights'/exp OR 'human rights abuse'/exp)) OR (((respect* OR
disrespect*) NEAR/3 (care OR caring* OR cares OR cared) NEAR/5 (matern* OR mother*) OR
(((maternal health service'/exp OR 'maternal care'/exp OR 'obstetric procedure'/exp) AND
(respect* OR disrespect*) NEAR/5 (care OR caring* OR cares OR cared OR wish* OR prefer*
OR opinion* OR desir* OR patient* OR matern* OR mother*))))) AND 'transcultural care'/exp OR
'cultural competence'/exp OR 'cultural sensitivity'/exp OR 'ethnic or racial aspects'/exp OR 'cultural
diversity'/exp OR 'race relation'/exp)) AND obstet* NEAR/5 (labor* OR deliver*)) OR (((respect* OR
disrespect*) NEAR/3 (care OR caring* OR cares OR cared) NEAR/5 (matern* OR mother*) OR
(((maternal health service'/exp OR 'maternal care'/exp OR 'obstetric procedure'/exp) AND
(respect* OR disrespect*) NEAR/5 (care OR caring* OR cares OR cared OR wish* OR prefer*
OR opinion* OR desir* OR patient* OR matern* OR mother*))))) AND 'human rights'/exp OR
'human rights abuse'/exp)) OR (((respect* OR disrespect*) NEAR/3 (care OR caring* OR cares
OR cared) NEAR/5 (matern* OR mother*) OR (((maternal health service'/exp OR 'maternal
...
AND (respect* OR disrespect*) NEAR/5 (care OR caring* OR cares OR cared OR wish* OR prefer* OR opinion* OR desir* OR patient* OR matern* OR mother*)) AND 'health personnel attitude'/exp) OR (((respect* OR disrespect*) NEAR/3 (care OR caring* OR cares OR cared) NEAR/5 (matern* OR mother*) OR (((maternal health service'/exp OR 'maternal care'/exp) OR 'obstetric procedure'/exp) AND (respect* OR disrespect*) NEAR/5 (care OR caring* OR cares OR cared OR wish* OR prefer* OR opinion* OR desir* OR patient* OR matern* OR mother*))) AND 'professional-patient relationship'/exp) OR (((respect* OR disrespect*) NEAR/3 (care OR caring* OR cares OR cared OR wish* OR prefer* OR opinion* OR desir* OR patient* OR matern* OR mother*))) AND (patient* NEAR/2 center* NEAR/5 care OR patient* NEAR/2 center* NEAR/5 treat* OR patient* NEAR/2 center* NEAR/5 therap* OR patient* NEAR/2 center* NEAR/5 interven* OR patient* NEAR/2 center* NEAR/5 carrier* OR patient* NEAR/2 center* NEAR/5 caring)) OR (((respect* OR disrespect*) NEAR/3 (care OR caring* OR cares OR cared) NEAR/5 (matern* OR mother*) OR (((maternal health service'/exp OR 'maternal care'/exp) OR 'obstetric procedure'/exp) AND (respect* OR disrespect*) NEAR/5 (care OR caring* OR cares OR cared OR wish* OR prefer* OR opinion* OR desir* OR patient* OR matern* OR mother*))) AND (TRANSCULTURAL CARE)/exp OR 'cultural competence'/exp OR 'cultural sensitivity'/exp OR 'ethnic or racial aspects'/exp OR 'cultural diversity'/exp OR 'race relation'/exp)) AND (((giv* OR gave OR vagin* OR experien*) NEAR/3 birth* OR (child birth* OR child birth* OR peripartum* OR 'peri partum*' OR postpartum* OR 'post partum' OR cesarean* OR 'c section*') OR (labor* OR deliver* OR birth* OR parturit*) NEAR/5 (servic* OR room* OR suite* OR center* OR plan OR plans OR planned OR planning OR prefer* OR desir* OR want* OR opinion* OR attitud* OR expect*))) AND [embase]/lim) NOT (((((respect* OR disrespect*) NEAR/3 (care OR caring* OR cares OR cared) NEAR/5 (matern* OR mother*)) OR (((respect* OR disrespect*) NEAR/3 (care OR caring* OR cares OR cared) NEAR/5 (matern* OR mother*)) OR (((maternal health service'/exp OR 'maternal care'/exp) OR 'obstetric procedure'/exp) AND (respect* OR disrespect*) NEAR/5 (care OR caring* OR cares OR cared OR wish* OR prefer* OR opinion* OR desir* OR patient* OR matern* OR mother*))) AND 'human rights'/exp OR 'human rights abuse'/exp)) OR (((respect* OR disrespect*) NEAR/3 (care OR caring* OR cares OR cared) NEAR/5 (matern* OR mother*)) OR (((maternal health service'/exp OR 'maternal care'/exp) OR 'obstetric procedure'/exp) AND (respect* OR disrespect*) NEAR/5 (care OR caring* OR cares OR cared OR wish* OR prefer* OR opinion* OR desir* OR patient* OR matern* OR mother*))) AND 'professional-patient relationship'/exp) OR (((respect* OR disrespect*) NEAR/3 (care OR caring* OR cares OR cared) NEAR/5 (matern* OR mother*)) OR (((maternal health service'/exp OR 'maternal care'/exp) OR 'obstetric procedure'/exp) AND (respect* OR disrespect*) NEAR/5 (care OR caring* OR cares OR cared OR wish* OR prefer* OR opinion* OR desir* OR patient* OR matern* OR mother*))) AND 'professional-patient relationship'/exp) OR (((respect* OR disrespect*) NEAR/3 (care OR caring* OR cares OR cared) NEAR/5 (matern* OR mother*)) OR (((maternal health service'/exp OR 'maternal care'/exp) OR 'obstetric procedure'/exp) AND (respect* OR disrespect*) NEAR/5 (care OR caring* OR cares OR cared OR wish* OR prefer* OR opinion* OR desir* OR patient* OR matern* OR mother*))) AND 'professional-patient relationship'/exp) OR (((respect* OR disrespect*) NEAR/3 (care OR caring* OR cares OR cared) NEAR/5 (matern* OR mother*)) OR (((maternal health service'/exp OR 'maternal care'/exp) OR 'obstetric procedure'/exp) AND (respect* OR disrespect*) NEAR/5 (care OR caring* OR cares OR cared OR wish* OR prefer* OR opinion* OR desir* OR patient* OR matern* OR mother*))) AND (patient* NEAR/2 center* NEAR/5 care OR patient* NEAR/2 center* NEAR/5 treat* OR patient* NEAR/2 center* NEAR/5 therap* OR patient* NEAR/2 center* NEAR/5 interven* OR patient* NEAR/2 center* NEAR/5
matern* OR mother*)) AND 'health personnel attitude'/exp) OR (((respect* OR disrespect*) NEAR/3 (care OR caring* OR cares OR cared) NEAR/5 (matern* OR mother*) OR ((('maternal health service'/exp OR 'maternal care'/exp) OR 'obstetric procedure'/exp) AND (respect* OR disrespect*) NEAR/5 (care OR caring* OR cares OR cared OR wish* OR prefer* OR opinion* OR desir* OR patient* OR matern* OR mother*))))) AND 'professional-patient relationship'/exp) OR (((respect* OR disrespect*) NEAR/3 (care OR caring* OR cares OR cared) NEAR/5 (matern* OR mother*) OR ((('maternal health service'/exp OR 'maternal care'/exp) OR 'obstetric procedure'/exp) AND (respect* OR disrespect*) NEAR/5 (care OR caring* OR cares OR cared OR wish* OR prefer* OR opinion* OR desir* OR patient* OR matern* OR mother*))) AND (patient* NEAR/2 center* NEAR/5 care OR patient* NEAR/2 center* NEAR/5 treat* OR patient* NEAR/2 center* NEAR/5 therap* OR patient* NEAR/2 center* NEAR/5 interven* OR patient* NEAR/2 center* NEAR/5 care OR patient* NEAR/2 center* NEAR/5 caring) OR (((respect* OR disrespect*) NEAR/3 (care OR caring* OR cares OR cared) NEAR/5 (matern* OR mother*) OR ((('maternal health service'/exp OR 'maternal care'/exp) OR 'obstetric procedure'/exp) AND (respect* OR disrespect*) NEAR/5 (care OR caring* OR cares OR cared OR wish* OR prefer* OR opinion* OR desir* OR patient* OR matern* OR mother*))) AND ('transcultural care'/exp OR 'cultural competence'/exp OR 'cultural sensitivity'/exp OR 'ethnic or racial aspects'/exp OR 'cultural diversity'/exp OR 'race relation'/exp)) AND ((giv* OR gave OR vagin* OR experien*) NEAR/3 birth* OR ('childbirth*' OR childbirth* OR peripartum* OR 'peri partum*' OR postpartum* OR 'post partum' OR cesarean* OR 'c section*') OR (labor* OR deliver* OR birth* OR parturit*) NEAR/5 (servic* OR room* OR suite* OR center* OR plan OR plans OR planned OR planning OR prefer* OR desir* OR want* OR opinion* OR attitud* OR expect*))) AND [medline]/lim)

Database: APA PsycInfo <1806 to July 13, 2023>

Search Strategy:

1  ((respect* or disrespect*) adj3 (care or caring* or cares or cared) adj5 (matern* or mother*)).mp. (55)
2  exp Health Care Services/ and exp pregnancy/ (5054)
3  ((respect* or disrespect*) adj5 (care or caring* or cares or cared or wish* or prefer* or opinion* or desir* or patient* or matern* or mother*)).mp. (13887)
4  2 and 3 (80)
5  exp Human Rights/ (40277)
6  2 and 5 (51)
7  exp Health Personnel Attitudes/ (26490)
8  6 and 7 (1)
9  exp Therapeutic Processes/ (81734)
10  6 and 9 (1)
11  exp Patient-Centered Care/ (525)
12  2 and 11 (3)
13  exp cross cultural treatment/ or cross cultural differences/ or cultural sensitivity/ (64433)
14  exp diversity/ or exp "Racial and Ethnic Differences"/ or exp Racial Bias/ or exp "Racial and Ethnic Attitudes"/ or exp "Racial and Ethnic Groups"/ (191666)
15  13 or 14 (241008)
16 2 and 15 (368)
17 1 or 4 or 8 or 10 or 12 or 16 (480)
18 exp birth/ (17660)
19 17 and 18 (205)
20 exp Parturition/ (17660)
21 17 and 20 (205)
22 exp Perinatal Period/ (3774)
23 17 and 22 (8)
24 exp Postnatal Period/ (6050)
25 17 and 24 (18)
26 19 or 21 or 23 or 25 (220)
27 (obstet* adj5 (labor* or deliver*)).mp. (2385)
28 17 and 27 (42)
29 26 or 28 (229)
30 (((giv* or gave or vagin* or experien*) adj3 birth*) or child birth* or childbirth* or 
peripartum* or peri-partum* or postpartum* or post-partum or c?esarean* or c-section* or 
((labor* or deliver* or birth* or parturit*) adj5 (servic* or room* or suite* or center* or plan 
or plans or planned or planning or prefer* or desir* or want* or opinion* or attitud* or 
expect*))).mp. (61043)
31 17 and 30 (190)
32 19 or 26 or 29 or 31 (300)
33 17 not 32 (180)

*****************************************************************************

Database: SocINDEX

Search ID#  Search Terms  Search Options  Last Run Via  Results
S34  S31 OR S32  Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase  Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - SocINDEX with Full Text  68
S33  S31 OR S32  Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase  Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - SocINDEX with Full Text  69
S32  S11 AND S28  Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase  Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - SocINDEX with Full Text  18
S31  S1 OR S24 OR S30  Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase  Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - SocINDEX with Full Text  67
S30  S27 AND S28 AND S29  Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase  Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - SocINDEX with Full Text 16
S29 ((respect* OR disrespect*) N5 (care OR caring* OR cares OR cared OR wish* OR prefer* OR opinion* OR desir* OR patient*)) Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - SocINDEX with Full Text 2,355
S28 S25 OR S26 Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - SocINDEX with Full Text 33,855
S27 S10 OR S15 Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - SocINDEX with Full Text 77,662
S26 (((giv* OR gave OR vagin* OR experien*) N3 birth*) OR "child birth*" OR childbirth* OR peripartum* OR peri-partum* OR postpartum* OR post-partum OR c#esarean* OR c-section* OR (labor* OR deliver* OR birth* OR parturit*) N5 (servic* OR room* OR suite* OR center* OR plan OR plans OR planned OR planning OR prefer* OR desir* OR want* OR opinion* OR attitud* OR expect*)) Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - SocINDEX with Full Text 33,154
S25 (obstet* N5 (labor* OR deliver*)) Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - SocINDEX with Full Text 1,464
S24 S21 OR S23 Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - SocINDEX with Full Text 34
S23 S15 AND S22 Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - SocINDEX with Full Text 55
S22 DE "OBSTETRICS" OR DE "CHILDBIRTH" OR DE "MIDWIFERY" OR DE "PREGNANCY" Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - SocINDEX with Full Text 9,194
S21 S1 OR S20 Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - SocINDEX with Full Text 21
S20  S2 AND S19  Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase  Interface - EBSCOhost Research Databases
Search Screen - Advanced Search

Database - SocINDEX with Full Text 3
S19  S17 OR S18  Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase  Interface - EBSCOhost Research Databases
Search Screen - Advanced Search

Database - SocINDEX with Full Text 1,055
S18  S15 AND S16  Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase  Interface - EBSCOhost Research Databases
Search Screen - Advanced Search

Database - SocINDEX with Full Text 843
S17  DE "TRANSCULTURAL medical care" OR DE "TRANSCULTURAL nursing"
Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase  Interface - EBSCOhost Research Databases
Search Screen - Advanced Search

Database - SocINDEX with Full Text 319
S16  DE "MEDICAL care" OR DE "ADVANCE directives (Medical care)" OR DE "CHILD health services" OR DE "COMMUNITY health services" OR DE "CURATIVE medicine" OR DE "DENTAL care" OR DE "DISCRIMINATION in medical care" OR DE "EMERGENCY medical services" OR DE "HEALTH equity" OR DE "HEALTH facilities" OR DE "HEALTH self-care" OR DE "HEALTH services accessibility" OR DE "HETEROSEXISM in medical care" OR DE "HOSPITAL care" OR DE "HUMANISTIC medicine" OR DE "MANAGED care programs" OR DE "MEDICAL charities" OR DE "MEDICAL compliance" OR DE "MEDICAL screening" OR DE "MENTAL health services" OR DE "OCCUPATIONAL health services" OR DE "OUTPATIENT medical care" OR DE "PARENTAL notification (Medical law)" OR DE "PATIENT care" OR DE "PATIENT-centered care" OR DE "PRENATAL care" OR DE "PREVENTIVE health services" OR DE "PREVENTIVE medicine" OR DE "PRIMARY health care" OR DE "RURAL health services" OR DE "SCHOOL health services" OR DE "TRANSCULTURAL medical care" OR DE "WOMEN'S health services"
Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase  Interface - EBSCOhost Research Databases
Search Screen - Advanced Search

Database - SocINDEX with Full Text 71,682
S15  S12 OR S13 OR S14  Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase  Interface - EBSCOhost Research Databases
Search Screen - Advanced Search

Database - SocINDEX with Full Text 19,284
S14  DE "CULTURAL competence"
Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase  Interface - EBSCOhost Research Databases
Search Screen - Advanced Search

Database - SocINDEX with Full Text 1,587
S13  E "CULTURAL prejudices" OR DE "ETHNOCENTRISM"
Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase    Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - SocINDEX with Full Text  1,535
S12  DE "CULTURAL pluralism" OR DE "BICULTURALISM" OR DE "CROSS-cultural communication" OR DE "CULTURAL awareness" OR DE "CULTURAL literacy" OR DE "CULTURE conflict" OR DE "DIVERSITY training programs" OR DE "MULTICULTURAL education" OR DE "MULTICULTURALISM"    Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase    Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - SocINDEX with Full Text  16,703
S11  S3 AND S10  Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase    Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - SocINDEX with Full Text  212
S10  S5 OR S8 OR S9  Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase    Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - SocINDEX with Full Text  59,270
S9  (PATIENT-centered care) AND (DE "PATIENT-centered care" OR DE "PATIENT-centered communication" OR DE "PATIENT-centered communication")    Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase    Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - SocINDEX with Full Text  1,112
S8  S6 OR S7  Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase    Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - SocINDEX with Full Text  6,750
S7  DE "PATIENT-professional relations" OR DE "HUMANISTIC medicine" OR DE "NURSE-patient relationships" OR DE "PATIENT satisfaction" OR DE "PHYSICIAN-patient relations"    Expanders - Apply equivalent subjects
Search modes - Boolean/Phrase    Interface - EBSCOhost Research Databases
Search Screen - Advanced Search
Database - SocINDEX with Full Text  4,744
S6  (DE "ATTITUDE (Psychology)" OR DE "AFFILIATION (Psychology)" OR DE "AGEISM" OR DE "AGGRESSION (Psychology)" OR DE "ATTITUDES of LGBTQ+ people" OR DE "ATTITUDES toward abortion" OR DE "ATTITUDES toward aging" OR DE "ATTITUDES toward bisexuality" OR DE "ATTITUDES toward child rearing" OR DE "ATTITUDES toward death" OR DE "ATTITUDES toward disabilities" OR DE "ATTITUDES toward entitlement" OR DE "ATTITUDES toward family planning" OR DE "ATTITUDES toward gender role" OR DE "ATTITUDES toward homosexuality" OR DE "ATTITUDES toward illness" OR DE "ATTITUDES toward mental illness" OR DE "ATTITUDES toward obesity" OR DE "ATTITUDES toward pregnancy" OR DE "ATTITUDES toward religion" OR DE "ATTITUDES toward sex" OR DE "ATTITUDES toward smoking" OR DE "ATTITUDES toward...
Search Criteria for Key Question 1 and Contextual Question: For KQ1, we conducted electronic searches in Ovid MEDLINE®, EMBASE, Cochrane CENTRAL, and SocINDEX through July 13, 2023.

Search Criteria for Key Questions 2-4: For KQ 2-4 evaluating the effectiveness of RMC on health and utilization outcomes and the effectiveness of RMC implementation strategies, we followed the same search strategies but searches began in 2013. This decision was guided by the timing of when the AIM program was established in 2014, which changed the policy context in the US. Also, the use of the term “respectful maternity care” was not cited in the peer reviewed, indexed literature prior to 2013, and publications prior to that date may not be informative or relevant for evaluating effectiveness. Given these considerations and discussions with the KIs and federal partners, searches to inform effectiveness questions (KQ2-4) were focused on literature from the last 10 years.

Gray Literature for KQs and CQ: Sources for gray (unpublished) literature included reports produced by federal and state agencies, healthcare provider organizations, or others. We searched for clearinghouses that aggregated, or reports that summarized experiences across different organizations. We followed up on the suggestions made by KIs and TEP members and tracked publications and organizations cited in included studies and reports.

Hand Searching for KQs and CQ: Reference lists of included articles, selected excluded articles (e.g., narrative reviews), and systematic reviews were reviewed for additional includable literature. For all questions, reference lists of included systematic reviews were screened for additional studies and relevant references were carried forward.

Supplemental Evidence and Data for Systematic review (SEADS): A Federal Register notification for a Supplemental Evidence and Data for Systematic review (SEADS) portal was posted from November 8 to December 8, 2022 for submission of unpublished studies; no eligible studies were identified.
Study Selection
Criteria were established *a priori* to determine eligibility for inclusion and exclusion of abstracts in accordance with the AHRQ Methods Guide. Study eligibility criteria for this CER were based on the population, intervention, comparisons, outcomes, timing, settings, and study designs of interest (PICOTS) framework and the key questions. The population of interest was pregnant and postpartum adolescents and adults admitted for labor through discharge and up to one year postpartum. Since not every individual with childbearing capability identifies as female, we used both gendered (e.g., women) and non-gendered terms (e.g., person, individual) to increase inclusivity when referencing the study population. We captured effectiveness and harms of RMC based on patient characteristics and non-patient factors, when available. Details regarding the PICOTS are summarized in Appendix A.

A contextual question was included to identify definitions and components of RMC described in the literature. All literature that was potentially eligible for KQ1-4 was also eligible for the CQ, based on studies identified using the same systematic search strategy. We focused on studies identified through the main searches for all questions and supplemented searches with material identified through grey literature searches or suggested by the KIs, TEP, or federal partners. Descriptive and hypothetical studies were not included. Websites and training modules were not considered in the search. Contextual questions are not reviewed using systematic review methodology, such as risk of bias assessment or strength of evidence ratings, but are used to help inform the report. The contextual question was guided by an operational definition of RMC that was crafted with input from the KIs and the TEP. Studies eligible for the CQ defined RMC during labor and delivery and the immediate postpartum period, and described essential components or critical elements of RMC.

For KQ1, we considered studies of RMC that reported validated tools to measure RMC frameworks or programs that have been implemented, evaluated, or reported in the literature. Eligible studies designed to describe the development and evaluation of psychometric properties of outcomes measurement tools for RMC were considered for inclusion. We adapted the general COSMIN (COnsensus-based Standards for the selection of Health Measurement Instruments) framework to facilitate descriptions of specific aspects of measurement validation and a simplified adaptation of the basic COSMIN principles to evaluate the methodological quality of studies on measurement properties (see Risk of Bias assessment criteria Appendix A and Appendix D for additional details).

Psychometric analyses were used to evaluate the validity, reliability and responsiveness of outcomes measures and may include methods based classic test theory (CTT) or item-response theory (IRT) or Rasch Measurement Theory. Cross-sectional and longitudinal observational studies designed to evaluate psychometric properties of outcomes measurement tools were considered for inclusion. Individual study risk of bias (ROB) was assessed using a modified tool based COSMIN and simple early criteria for assessing quality. Given that RMC measures have not been used to evaluate clinical health outcomes, response to treatment, or similar concepts for which a minimally important change might be considered, we did not look at domains related to responsiveness or potential for floor and ceiling effects.

For studies of effectiveness (KQ 2,3,4) we considered comparative studies of strategies to implement RMC and studies that reported the effect of RMC on maternal and infant health outcomes, in addition to outcomes related to utilization. We considered studies if they reported how the effective delivery and strategies to implement or provide RMC varies among disadvantaged persons as defined by the PROGRESS-plus framework, including populations that may vary by geographic location or residence, race/ethnicity/culture, language, disability,
age, gender/sex, and others. Patient perspectives, including patient satisfaction, were considered as outcomes, when reported.

Study designs considered for inclusion for KQs were comparative studies of any design including trials and observational studies. Qualitative or quantitative study designs examining components, frameworks, or effectiveness of RMC strategies were evaluated for fit to either KQs or CQ. Randomized controlled trials (RCTs) were prioritized for all key questions. Nonrandomized studies of interventions (NRSI) were also considered for all questions, including harms. Qualitative studies that evaluated patient experiences or clinician preferences were considered if they evaluated an RMC tool or intervention. Descriptive studies with no outcome data or studies that included only data from one point in time (cross-sectional) were not included for effectiveness questions, although they were considered for the contextual question and KQ1. We reviewed existing systematic reviews and included their results if appropriate. References lists of systematic reviews were also used to identify relevant studies. Commentaries, letters, conference abstracts and studies of nonhuman subjects were excluded. Inclusion was restricted to English-language articles. Studies had to report original data to be included.

For KQ1 and the CQ, studies from low- or middle-income countries (LMIC) were considered, as these questions did not evaluate effectiveness of RMC and would likely not pose an issue for applicability. Rather, these questions aimed to identify critical components and validated measures of RMC, which may not primarily be from U.S. relevant settings and would not affect applicability. Only studies used to inform the CQ did not require a comparison. Observational studies from LMIC were not prioritized for questions of effectiveness (KQ 2,3,4) given that RMC approaches and health care systems may be very different in other countries. In the absence of U.S.-relevant trials, only RCTs from LMICs were considered for effectiveness questions due to concerns regarding internal validity or risk of bias.

To ensure accuracy, all excluded abstracts were dual reviewed by two investigators. Each full-text article was independently reviewed for eligibility by at least two team members using prespecified inclusion criteria and DistillerSR software version 2.35. (https://www.distillersr.com/). Discrepancies were resolved by discussion and consensus; of the few discrepancies, all were resolved without the need for a third team member. Investigators tracked results in EndNote version 20.1 (Thomson Reuters, New York, NY). All disagreements were resolved through a consensus process between investigators. A list of included studies may be found in Appendix B.

Inclusion and Exclusion Criteria

The inclusion and exclusion criteria for the overall review are specified in Table A-1.
Table A-1. PICOTS: inclusion and exclusion criteria

<table>
<thead>
<tr>
<th>PICOTS</th>
<th>Inclusion and Exclusion Criteria</th>
</tr>
</thead>
</table>
| **Population** | Include: CQ, KQ 1-4: Pregnant adolescents and adults admitted for labor through discharge after delivery  
Additional populations:  
• KQ 2 and 3: Disadvantaged individuals⁹  
Exclude: Nonpregnant populations |
| **Interventions** | Include: KQ 1: Validated measures of respectful care  
KQs 1-4: Respectful maternity care (any definition)  
KQ 2 and 3: Specific component of RMC  
KQ 4: Implementation strategies for RMC (e.g., patient/provider education, policies, payment, doula/patient advocate, practice facilitation)  
Exclude: KQ 1: Nonvalidated RMC measures |
| **Comparators** | Include: KQ 1: Other tool(s), reference/gold standard or no tool to measure respectful care  
KQs 2-3: Routine maternity care  
Absence of a specific RMC component  
KQ 4: Other implementation strategies for RMC  
Exclude: KQ1-4: No comparison |
| **Outcomes** | Include:  
KQ 1: Respectful care as measured by a validated tool  
KQ 2: Health outcomes for pregnant people  
• Maternal mortality  
• Severe maternal morbidity⁶ (e.g., cesarean delivery; postpartum hemorrhage; hypertensive diseases of pregnancy; sepsis; embolism; cardiovascular complications)  
• Mental health outcomes using validated clinical measures (e.g., perinatal depression screening, anxiety, suicidality; rates of PTSD, depression, anxiety; psychological distress as reported on a validated clinical scale)  
• Function, quality of life, patient satisfaction using validated measures  
• Harms (e.g., mistreatment; disrespectful care; birth related injury; missed or delayed diagnoses; systems delay in identifying or responding to symptoms)  
• Utilization outcomes for pregnant people  
• Length of stay  
• Healthcare utilization post-discharge  
• Rates of procedures  
KQ 3: Health outcomes for infants  
• Infant mortality  
• Infant morbidity (e.g., NICU admission, preterm birth, low birth weight)  
• Harms (E.g., birth related injuries; missed or delayed diagnosis)  
• Utilization outcomes for infants  
• Length of stay  
• Healthcare utilization post-discharge  
KQ 4: RMC provider knowledge and/or practices  
• Rates of procedures and interventions  
Exclude: KQ3: Infant health outcomes >1 year |
| **Timing** | Include:  
• Intervention: admission for labor through discharge after delivery  
• Outcomes: from admission through one year postpartum |
PICOTS | Inclusion and Exclusion Criteria
--- | ---
**Exclude:** | Interventions: before labor, during prenatal care  
Outcomes: More than one year postpartum

**Settings** |  
CQ, KQ1: All countries in a hospital or birthing facility setting (e.g., birth centers)  
KQs 2-4: hospital or birthing facility in U.S. or U.S. relevant countries

**Exclude:** | Home births

**Study designs and publication types** |  
Include:  
CQ, KQs 1-4: Trials (randomized and comparative nonrandomized studies of interventions)  
CQ: noncomparative studies

Exclude:  
KQ 1: Studies that do not describe psychometric properties/methods of determining validity of measures or components  
KQs 2-4: Case reports, case series (or similar single-arm designs)  
Publication types: Conference abstracts or proceedings, editorials, letters, white papers, nonpeer-reviewed citations, single site reports of multi-site studies

Abbreviations: CQ = Contextual Question; KQ = Key Question; NRSI = nonrandomized studies of interventions; NICU = neonatal intensive care unit; PTSD = post-traumatic stress disorder; RMC = respectful maternity care

a “Disadvantaged persons” as defined by PROGRESS-plus framework described as those who may experience discrimination due to geography, race/ethnicity, age, disability, language, education, socioeconomic status, etc. or other characteristics associated with disadvantage; we use this term as reported in the framework.

**Risk of Bias (Quality) Assessment of Individual Studies**
For KQ 2-4, questions of effectiveness, we assessed risk of bias based on study design according to the following criteria:

- Quality Assessment of Randomized Controlled Trials
  - Adequate randomization of participants.
  - Allocation of treatment adequately concealed.
  - Groups similar at baseline.
  - Intent-to-treat analysis performed.
  - All eligible trial participants included in analyses post-randomization.
  - Overall loss to followup or missing data for outcomes less than 20 percent.
  - Loss to followup or missing data similar across groups.
  - Comparable groups maintained in outcome analysis.
  - Intervention(s), and comparator(s) well described.
  - Outcome ascertainment similar between groups.
  - Outcome assessors blinded or outcomes objectively measured.

**Quality Assessment of Nonrandomized Studies of Interventions**

- Study attempted to enroll all or a random sample of patients meeting inclusion criteria.
- Groups similar at baseline or important confounding and modifying variables accounted for.
- Overall loss to followup or missing data for outcomes less than 20 percent.
- Loss to followup or missing data similar across groups.
- Comparable groups maintained in outcome analysis.
- Intervention(s) or exposure(s), and comparator(s) well described.
- Outcome ascertainment similar between groups.
- Outcome assessors blinded or outcomes objectively measured.
Quality Assessment of Qualitative Studies

- Recruitment and/or inclusion well specified.
- Participants matched the research question.
- Researchers dual coded the intervention and outcome.
- Researchers checked the membership of the participants.
- Triangulation of the results.
- Interpretation of the results is substantiated by data.

Studies were rated as “low,” “medium,” or “high” risk of bias using the below as a guide for each study design.

Studies rated low are considered to have the least risk of bias, and their results are generally considered valid. Low risk of bias intervention studies included a valid method for allocating patients to treatment, and similar patient characteristics across groups at baseline; blinding of patients, caregivers, and outcome assessors to treatment received; low and non-differential dropout rates and clear reporting of dropouts; and use of intention-to-treat analysis.

Studies rated moderate are susceptible to some bias, though not enough to invalidate the results. These studies may not meet all the criteria for a rating of low risk of bias, but no flaw or combination of flaws is likely to cause major bias. The study may be missing information, making it difficult to assess limitations and potential problems. The moderate risk of bias category is broad, and studies with this rating vary in their strengths and weaknesses. The results of some moderate studies are likely to be valid, while others may be only possibly valid.

Studies rated high have significant flaws that imply biases of various types that may invalidate the results. They have a serious or “fatal” flaw (or combination of flaws) in design, analysis, or reporting; large amounts of missing information, or very high attrition; discrepancies in reporting; or serious problems in the delivery of the intervention. The results of these studies are at least as likely to reflect flaws in the study design as to show true difference between the compared interventions. We did not exclude studies rated high risk of bias a priori, but high risk of bias studies were considered less reliable and given less weight than lower risk of bias studies when synthesizing the evidence, particularly when discrepancies between studies were present.

Quality Assessment of Psychometric Studies

ROB evaluation included evaluation of the following general study design components:

- Participant enrollment: YES if prespecified criteria were used and samples were randomly or consecutively enrolled (for all patients meeting eligibility criteria); NO if the population was a convenience sample.
- Patient population: YES if authors provided sufficient detail of the population for which the tool was tested. UNCLEAR if only age and/or parity and/or race provided, or only very limited information provided. NO if detail is not present.

An overall rating of good, fair, poor based on these primary aspects of tool validation:
Table A-2. Quality assessment of psychometric studies

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description and Criteria</th>
</tr>
</thead>
</table>
| Good    | • Strongest methods and least potential for bias  
• Employ valid methods for selection; details of target population  
• Detailed methods for content validation; construct validation methods details including hypothesis testing, assessment of model fit, correlations; internal consistency Cronbach’s alpha should range from 0.70 to 0.95 |
| Fair    | • Less detailed documentation of population, psychometric method and/or results: Susceptible to some bias but not enough to necessarily invalidate results  
• May not meet all criteria for good quality, but no flaw is likely to cause major concern; the study may be missing information making it difficult to assess limitations and potential problems  
• Category is broad; studies with this rating will vary in strengths and weaknesses; some fair-quality studies are likely to be valid, while others may be only less valid |
| Poor    | • Significant flaws that imply biases of various kinds that may invalidate results; “fatal flaws” in design, analysis, or reporting; large amounts of missing information; discrepancies in reporting  
• Studies are at least as likely to reflect flaws in the study design or execution or reporting of results as the true characteristics of the tool  
• Considered to be less reliable than fair or good quality studies when synthesizing the results |

Measures Evaluation

We describe the following methods to assess the quality of studies evaluating the validity and reliability of tools for measuring RMC. Methodologic approaches follow guidance by Terwee (2007)\textsuperscript{7} and Norvell (2005).\textsuperscript{11}

We evaluated two primary components of validity and evaluated internal consistency.

- **Content validity** measures whether the outcomes of interest are adequately represented by questions in the instrument and is a prerequisite for selecting and applying a measurement instrument.\textsuperscript{7,11} YES if the item development process was detailed (e.g., use of literature search, experts, target population), the tool was pilot tested in the target population, and there was a rationale for inclusion of final items presented.

- **Construct validity** evaluates whether scores relate to a theoretically derived hypothesis. YES if modified COSMIN criteria suggested by Beecher 2021\textsuperscript{12} were met.
  - Specific hypotheses need to be stated, with consistent results from testing ≥50 patients;
  - Structural validity assessed, using Classic Test Theory (CTT) or Item Response Theory (IRT)/Rasch methods or modified COSMIN criteria as described by Beecher (2021)\textsuperscript{12}
  - Confirmatory factor analysis: assessment of Comparative Fit Index or Tucker Lewis Index or comparable measure > 0.90, or the Root Mean Square Error of Approximation < 0.06, or Standardized Root Mean Residuals < 0.08\textsuperscript{13}
  - Cross-cultural validation

- **Internal consistency** was measured using Cronbach’s alpha, a measure of internal consistency that assesses whether items in the tool or questionnaire evaluates the same concept. A Cronbach’s alpha >0.70 performed on a minimum of 100 people indicates good internal consistency.

We reported on but did not formally assess test-retest reliability, or the extent to which repeated measurements yield similar responses.\textsuperscript{11}

- **Reproducibility** was not reported for most studies. However, many of the validated tools were applied in a variety of countries or settings. YES if the intraclass
correlation coefficient or weighted Kappa coefficient were $\geq 0.70$ when measured in at least 50 patients. NO if the Pearson correlation coefficient was the only measure, as it does not account for systematic differences.\textsuperscript{7}

We did not formally assess criterion validity. Since there is neither a gold standard nor well-defined, high quality comparator instrument for measuring RMC or maternity care experiences,\textsuperscript{12} it was not possible to formulate a specific hypothesis for use in these measurement properties.

- **Criterion validity** refers to the extent to which a tool or instrument correlates to an established, well-defined, high-quality comparator instrument or “gold standard” measuring the same constructs, conceptually relevant constructs, or conceptually relevant performance. YES if there was an established, well-defined high quality comparator instrument; if so, correlation should be $\geq 0.70$.\textsuperscript{7}

Each study was independently reviewed for risk of bias by at least two team members. Any disagreements were resolved through consensus. Based on the risk of bias assessment, included studies were rated as having “low,” “moderate,” or “high” risk of bias. Studies rated high risk of bias were not excluded a priori, but were considered to be less reliable than low or moderate risk of bias studies when synthesizing the evidence.

Data Analysis and Synthesis

Evidence tables identify study characteristics, results of interest, and risk of bias (ROB) ratings for all included studies eligible for ROB assessments, and summary tables highlight the main findings (Appendices C and D). Studies were reviewed and highlighted using a hierarchy-of-evidence approach, where the best evidence is the focus of the synthesis for each key question. Since the key questions varied in nature and scope, the approach to synthesis also varied. We analyzed the evidence according to KQ using qualitative (narrative) synthesis. Randomized controlled trials (RCTs) were prioritized and studies with lower risk of bias ratings were given more weight in our synthesis for each key question and eligible outcome.

Quantitative methods, or meta-analyses, were not performed as they would not produce meaningful results due to limited numbers of studies reporting similar outcomes and due to heterogeneity based on study design, patient population, and interventions. We created categories of results based primarily on the approach to RMC. Different types of evidence were required to answer each of the questions, which required a different approach to synthesizing data for each question as described below.

For KQ1 studies reporting validated measures of RMC, results related to tool development and psychometric properties are summarized across studies grouped by RMC tool when feasible, reported components or domains, and country. Qualitative data are summarized in tables. Results for the contextual question are reported descriptively.

Results for the contextual question are reported descriptively. The main studies included for the CQ are source documents that define seminal RMC frameworks. Frameworks are organized categorically and synthesized to inform our definition of RMC (Box 1 in the Full Report), and includes identification of essential RMC components. This definition was also informed by input from KIs and the TEP. A catalogue of studies reporting the use of RMC frameworks illustrates implementation and application in various settings (see Appendix C).
Grading the Strength of the Body of Evidence

The strength of evidence (SOE) for the body of evidence is usually assessed using the approach described in the AHRQ Methods Guide,\(^1\) based on study limitations, consistency, directness, precision, and reporting bias. These criteria are applied regardless of whether evidence is synthesized quantitatively or qualitatively but not applied to studies informing the contextual question, as these are descriptive. Strength of evidence ratings reflect our confidence or certainty in the findings.

Given the lack of effectiveness studies, the characteristics of the studies using psychometric measures to assess validated tools, and the descriptive nature of the evidence to inform the contextual question, standardized methods for grading the strength of the body of evidence were not applicable to this review.\(^4\) Due to lack of comparative data, SOE for KQ1 was not formally assessed as criteria and methods for determining SOE across studies of patient-reported outcomes measures which would be most applicable to RMC measurement tools are not well-defined or standardized.\(^4\) In addition, the substantial heterogeneity in validation methods used in included studies, populations sampled, and tools that were assessed precluded meaningful synthesis across them that would be needed to formally determine SOE. We considered the general quality of the psychometric studies as described above, the extent to which content validity, construct validity and internal consistency evaluations were documented in the population of interest to this report for a given tool as well as RMC components contained in the tool and potential applicability to U.S. settings to suggest tool(s) that may be most appropriate for initial use to measure RMC.

Formal SOE rating was not done for KQ2 due to insufficient evidence based on the identification of one fair-quality RCT and the inability to assess consistency and precision of findings.

Assessing ApplicabilityApplicability (external validity) was considered according to the approach described in the Methods Guide for Effectiveness and Comparative Effectiveness Reviews.\(^1\) We used the PICOTS framework to consider the applicability of the evidence base for each key question, for example, examining the characteristics of the patient populations (e.g., clinical condition) and study setting to determine how well the identified body of evidence matches these criteria. Information relevant for assessing applicability included the number and diversity of settings or locations as well as characteristics of the population, RMC intervention, or implementation strategy.\(^14\) Variability in the studies, relevance of included studies to U.S. populations, and heterogeneity in study design or outcomes, may limit the ability to generalize the results to other populations or settings and affect the degree of confidence on how well this evidence base can be applied more broadly.

Peer Review and Public CommentaryAn associate editor from a different EPC reviewed the draft report. Experts were invited to provide external peer review of this systematic review; AHRQ also provided comments. In addition, the draft report was posted on the AHRQ website July 17 to August 21, 2023 for public comment. All comments were reviewed and used to inform revisions to the draft report.
Appendix B. Literature Flow Diagram

Literature Flow Diagram

Figure B-1. Literature flow diagram

Abstracts of potentially relevant articles identified through Ovid® MEDLINE®, PsycINFO®, Embase®, CINAHL, SocINDEX, and other sources a (n=4,043)

Excluded abstracts (n=3,600)

Full-text articles reviewed for inclusion (n=443)

Excluded articles (n=319)
- Ineligible population: 37
- Ineligible intervention: 109
- Ineligible comparator: 3
- Ineligible outcome: 11
- Ineligible study design: 25
- Ineligible publication type: 112
- Ineligible sample size: 2
- Systematic review or meta-analysis used only as source document: 10
- Article or systematic review covered by a more recent systematic review: 1
- Not English language: 3
- Ineligible country: 3
- Background: 3

Included studies (n=37) b

CQ1: 12 studies c
KQ1: 24 studies d
KQ2: 1 study
KQ3: 0 studies
KQ4: 0 studies

Abbreviations: CQ = Contextual Question, KQ = Key Question, RMC = respectful maternity care

a Other sources include reference lists of relevant articles, systematic reviews, suggestions from experts.

b For the Contextual Question, we identified 77 additional studies that apply RMC frameworks in various countries and settings; although not formally included in the evidence, they are included in our tables, and therefore not listed in the excluded articles section. Four studies included for KQ1 also apply RMC frameworks in various countries and settings. 15-18

c Twelve RMC frameworks are described in 12 source studies. 19-30

d For Key Question 1, we identified 14 additional studies that apply RMC tools in various countries and settings; although not formally included in the evidence, they are included in our tables, and therefore not listed in the excluded articles section.

Included Studies


Appendix C. Evidence Tables

Twelve tools validated in twenty-four studies\textsuperscript{15-18,31-50} were identified for inclusion based on evaluation aimed at measuring women's experiences with Respectful Maternity Care (RMC) or tools that include components of RMC but were not designed to specifically measure RMC (Table C-1). For additional details of each tool, please see Table C-2 for full data abstraction.

<table>
<thead>
<tr>
<th>Focus of Tool (RMC or Other)</th>
<th>Tool/Scale</th>
<th>Examples of Additional Studies Applying Validated Tools*</th>
<th>Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>RMC</td>
<td>Childbirth Options, Information, and Person-Centered Explanation (CHOICEs) index\textsuperscript{35}</td>
<td>• Breman, 2022\textsuperscript{15}</td>
<td>• United States</td>
</tr>
<tr>
<td></td>
<td>Disrespect and Abuse Questionnaire\textsuperscript{41}</td>
<td>• Hajizadeh, 2023\textsuperscript{41}</td>
<td>• Iran</td>
</tr>
<tr>
<td></td>
<td>Mothers Autonomy in Decision Making (MADM)\textsuperscript{46}</td>
<td>• Vedam, 2017\textsuperscript{46}</td>
<td>• Australia</td>
</tr>
<tr>
<td></td>
<td>• Feijen-de Jong, 2020\textsuperscript{39}</td>
<td>• Bangladesh</td>
<td></td>
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<tr>
<td></td>
<td>• Jenkinson, 2021\textsuperscript{16}</td>
<td>• Canada</td>
<td></td>
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<tr>
<td></td>
<td>• Peters, 2022\textsuperscript{43}</td>
<td>• Iceland</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Basile Ibrahim, 2023\textsuperscript{51}</td>
<td>• The Netherlands</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Mangindin, 2023\textsuperscript{12}</td>
<td>• United States</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Stevens, 2022\textsuperscript{53}</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mothers on Respect index (MORi)\textsuperscript{47}</td>
<td>• Vedam, 2017\textsuperscript{47}</td>
<td>• Australia</td>
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<td></td>
<td>• Feijen-de Jong, 2020\textsuperscript{39}</td>
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<td>• Canada</td>
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<td></td>
<td>• Peters, 2022\textsuperscript{43}</td>
<td>• Ethiopia</td>
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<td></td>
<td>• Alghamdi, 2023\textsuperscript{54}</td>
<td>• Iceland</td>
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<td></td>
<td>• Basile Ibrahim, 2023\textsuperscript{51}</td>
<td>• Saudi Arabia</td>
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<td>• Birie, 2023\textsuperscript{55}</td>
<td>• The Netherlands</td>
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<td></td>
<td>• Mangindin, 2023\textsuperscript{12}</td>
<td>• United States</td>
<td></td>
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<tr>
<td></td>
<td>• Stevens, 2022\textsuperscript{53}</td>
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<tr>
<td></td>
<td>Quality of Respectful Maternity Care Questionnaire in Iran (QRMCQI)\textsuperscript{18}</td>
<td>• Taavoni, 2018\textsuperscript{18}</td>
<td>• Iran</td>
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<tr>
<td></td>
<td>23i-RMC scale\textsuperscript{19}</td>
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<tr>
<td></td>
<td>Respectful Maternity Care (RMC) scale\textsuperscript{45}</td>
<td>• Sheferaw, 2016\textsuperscript{45}</td>
<td>• Ethiopia</td>
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<td></td>
<td>• Esmkhani, 2021\textsuperscript{38}</td>
<td>• Iran</td>
<td></td>
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<tr>
<td></td>
<td>• Ezeanochie, 2023\textsuperscript{56}</td>
<td>• Nigeria</td>
<td></td>
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<tr>
<td></td>
<td>Women's Perception of Respectful Maternity Care Scale (WP-RMC)\textsuperscript{15}</td>
<td>• Ayoubi, 2020\textsuperscript{15}</td>
<td>• Iran</td>
</tr>
<tr>
<td>General Childbirth</td>
<td>Childbirth experience questionnaire (CEQ, CEQ-2)\textsuperscript{49}</td>
<td>• Dencker, 2020\textsuperscript{16}</td>
<td>• Iran</td>
</tr>
<tr>
<td></td>
<td>• Kalok, 2022\textsuperscript{42}</td>
<td>• Malaysia</td>
<td></td>
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<tr>
<td></td>
<td>• Ghanbari-Homayi, 2019\textsuperscript{40}</td>
<td>• Sweden</td>
<td></td>
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<tr>
<td></td>
<td>• Hajizadeh, 2020\textsuperscript{17}</td>
<td>• United Kingdom</td>
<td></td>
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<tr>
<td></td>
<td>• Walker, 2015\textsuperscript{48}</td>
<td></td>
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</tr>
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<td></td>
<td>• Walker, 2020\textsuperscript{49}</td>
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<tr>
<td>Focus of Tool (RMC or Other)</td>
<td>Tool/Scale</td>
<td>Examples of Additional Studies Applying Validated Tools*</td>
<td>Countries</td>
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<tr>
<td>Other</td>
<td>Mother-centered prenatal care (MCPC)</td>
<td>• Rubashkin, 2017(^{44})</td>
<td>Hungary</td>
</tr>
<tr>
<td>Other</td>
<td>Patient Centered Maternity Care (PCMC)</td>
<td>• Afulani, 2017, 2018, 2019, 2022, 2023(^{31}-34,57) • Altman, 2023(^{58}) • Hameed, 2023(^{39}) • Kapula, 2023(^{60}) • Stierman, 2023(^{61}) • Sudhinaraset, 2023(^{62}) • Montagu, 2020(^{63})</td>
<td>Ethiopia, Ghana, India, Kenya, Pakistan, United States</td>
</tr>
<tr>
<td>Obstetric Racism</td>
<td>Patient-Reported Experience Measure of Obstetric Racism (PREM-OB) Scale(^{TM})</td>
<td>• Lett 2023(^{64})</td>
<td>United States</td>
</tr>
</tbody>
</table>

* Some studies address more than one tool and are listed more than once.

Abbreviations: RMC = respectful maternity care
<table>
<thead>
<tr>
<th>Validated Tool</th>
<th>Scale or Tool to Measure RMC or Other</th>
<th>Author (Year)</th>
<th>Study Design, Sampling Method (n)</th>
<th>Country</th>
<th>Patient Characteristics</th>
<th>Inclusion/Exclusion Criteria</th>
<th>Measure/Instrument; Type (e.g., Clinician Reported, Patient Reported)</th>
<th>Timing of Measurement (e.g., Immediately Postpartum); Followup</th>
<th>Evaluation Objectives</th>
<th>Interpretation, Score Range</th>
<th>Results of Psychometric Analyses</th>
</tr>
</thead>
</table>
| RMC-based Tools | CHOICES shared decision-making tool (informed by MOR, MADM, and SDM-Q9) | Breman, 2022<sup>15</sup> | Cross-sectional Survey (N=1,171) | U.S. | Mean age (SD), 31.6 (7.4) | Included: >18 years; complete the survey in English, index birth in a U.S. hospital between August 1, 2019, and August 31, 2021 | CHOICES instrument; item mapping to evaluate validity; Patient-reported | Intrapartum | Developed and tested psychometric properties of a shared decision-making tool (CHOICES) in the U.S., using confirmatory factor analysis (see Table 2, questions 7-15); incorporated 14-item MORi and 7-item MADM | MOR score: 14–31 = very low respect, 32–49 = low respect, 50–66 = moderate respect, and 67–84 = high respect. MADM score: 7–15 = very low patient autonomy, 16–24 = low patient autonomy, 25–33 = moderate patient autonomy, and 34–42 = high patient autonomy. CHOICES: score range 0-90 (cutoffs not established), with higher scores indicating higher shared-decision making. | Content validity: n=8 women, 3 providers  
Item development: n=6 experts  
Scale development: n=10 women  
Internal consistency: with Rasch person separation index (≥0.70 considered sufficient), DIF analysis across racial groups (≥1.00 considered different)  
Construct validity: unidimensionality with CFA; item fit with Rasch inf and outfit statistics (0.4-1.6 considered appropriate)  
Criterion validity: Pearson’s correlation (CHOICES scores with the MOR and MADM, threshold NR) and linear regression with CHOICES as the dependent variable and age, education, marital status, insurance type, race, ethnicity, and MADM and MORi scores as potential confounders |
<table>
<thead>
<tr>
<th>Validated Tool</th>
<th>Scale or Tool to Measure RMC or Other</th>
<th>Author (Year)</th>
<th>Study Design, Sampling Method (n)</th>
<th>Country</th>
<th>Patient Characteristics</th>
<th>Inclusion/Exclusion Criteria</th>
<th>Measure/Instrument; Type (e.g., Clinician Reported, Patient Reported)</th>
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<th>Evaluation Objectives</th>
<th>Interpretation, Score Range</th>
<th>Results of Psychometric Analyses</th>
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</thead>
<tbody>
<tr>
<td>Develop and validate the Disrespect and Abuse Questionnaire in Farsi</td>
<td>Hajizadeh, 2023</td>
<td>Good</td>
<td>Cross-sectional Survey (N=265)</td>
<td>Iran</td>
<td>Mean age (SD), 27.7 (0.4)</td>
<td>Included Women undergoing vaginal birth; Excluded Experiencing stressful event, mental health disorders, depression, major neonatal abnormalities</td>
<td>Disrespect and Abuse Questionnaire (Farsi); patient reported</td>
<td>6-18 hours postpartum</td>
<td>Psychometric testing of an unvalidated survey to evaluate D&amp;A in Iranian women (Farsi)</td>
<td>NR in article</td>
<td>Face and Content validity: n=10 providers, n=20 postpartum women; cutoff impact score ≥1.5, CVR ≥0.62, CVI ≥0.79 considered sufficient Construct validity: CFI &gt;0.095 indicate relevance Reliability: internal consistency (Cronbach’s alpha ≥0.6); reproducibility (ICC &gt;0.8 considered acceptable)</td>
</tr>
<tr>
<td>Develop and validate MADM Scale</td>
<td>Vedam, 2017</td>
<td>Fair</td>
<td>Cross-sectional Survey (N=1,672)</td>
<td>Canada</td>
<td>Mean age, 32.6 One or more medical or social risk factor during pregnancy: 10.2% Race/ethnicity: White: 92.5% Chinese: 1.6% First Nations, Inuit, or Métis: 1.8% Providers Midwives:68.5% Family physicians: 19.9% Obstetricians: 11.6%</td>
<td>Included Women who saw a single care provider during pregnancy Excluded women who missed any items or marked one or more items as ‘not applicable’</td>
<td>MADM scale; patient reported</td>
<td>Postpartum</td>
<td>Patient-led development and psychometric testing of a new instrument to evaluate experience of maternity care</td>
<td>NR in article</td>
<td>Item generation: literature review Content validation: expert panel review (n NR) Pilot test: women (n NR) Internal consistency with Cronbach’s alpha (threshold NR) Unidimensionality of scale: item to total correlations &gt;0.45</td>
</tr>
<tr>
<td>Validated Tool</td>
<td>Scale or Tool to Measure RMC or Other</td>
<td>Author (Year)</td>
<td>Study Design, Sampling Method (n)</td>
<td>Country</td>
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<tr>
<td>Develop and validate MOR Index to assess women's experience with maternity care</td>
<td>Vedam, 2017</td>
<td>Cross-sectional Survey (N1=2,514; N2=2,271; N3=1,613)</td>
<td>Canada</td>
<td>Mean age 32.6</td>
<td>Race: White: 92.5%; Chinese: 1.6%; First Nations, Inuit, or Métis: 1.8%</td>
<td>Included: Women who saw a single care provider during pregnancy</td>
<td>MOR Index, assessed replicability, reliability and validity in Canada; patient-reported</td>
<td>Women with past childbirth experiences</td>
<td>Developed and assessed the psychometric properties of two versions of the scale (7 and 14 items). Higher scores indicate more respectful interactions with care providers</td>
<td>NR in article</td>
<td>Assessed two versions of scale: 7 and 14 items (n=2514 experiences among 1672 women) 3 replicability samples (total n=2271 experiences, sample 1 n=1596 experiences, sample 2 n=675 experiences) <strong>Content validity:</strong> literature review, expert panel review, work groups <strong>Construct validity:</strong> item-to-total correlations, factor structure (unweighted least squares factor analysis) <strong>Internal consistency</strong> (Cronbach’s alpha, cutoff NR)</td>
</tr>
<tr>
<td>A Dutch translated and adapted version of the MORI and MADM</td>
<td>Feijen-de Jong, 2020</td>
<td>Cross-sectional Survey (N=557) Pilot test (n=11 women)</td>
<td>The Netherlands</td>
<td>Mean age (SD) 31 (4)</td>
<td>Pregnancy complications: 36% Ethnicity: Dutch: 93% Provider Midwife: 86% Obstetrician: 14%</td>
<td>Included: Pregnant women living in the Netherlands Excluded: Aged &lt;16</td>
<td>MADM and MORI (Dutch version); patient reported</td>
<td>NR</td>
<td>Psychometric properties (i.e., feasibility, reliability and construct validity) of a translated and adapted version of the MORI and MADM</td>
<td>MORI (14 items, score 14-84) and MADM (7 items, score 7-42)</td>
<td><strong>Internal consistency</strong> using Cronbach's alpha (≥0.70 considered satisfactory) <strong>Construct validity:</strong> Mann-Whitney U or Kruskal Wallis tests, with hypotheses of lower MORI in complicated pregnancies and higher MADM/MORI with midwifery providers</td>
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<tr>
<td>Validated Tool</td>
<td>Scale or Tool to Measure RMC or Other</td>
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<tr>
<td>Respectful Maternity Care in Queensland (informing by MORI and MADM, validated in Australia)</td>
<td>Jenkins, 2021</td>
<td>Poor</td>
<td>Cross-sectional Survey (N=161)</td>
<td>Australia</td>
<td>Ethnicity</td>
<td>Caucasian: 87.6% Aboriginal: 2.5% Asian: 1.2% Middle Eastern: 1.2% Other: 7.5%</td>
<td>Included: Women aged ≥18, birthed in Queensland &lt;6 months Excluded: Aged ≤16, women whose babies were stillborn or died in neonatal period</td>
<td>Questionnaire using MORI and MADM (21 questions on MADM and MORI, 4 open-ended); patient reported</td>
<td>Postpartum &lt;6 months</td>
<td>Developed RMC in Queensland questionnaire using item and scale level content validity</td>
<td>Unclear, but appears to be same as MADM and MORI</td>
</tr>
<tr>
<td>MADM and MORI (validated in Dutch) and CEQ2.0 for intrapartum care</td>
<td>Peters, 2022</td>
<td>Good</td>
<td>Cross-sectional Survey (N=621)</td>
<td>The Netherlands</td>
<td>Mean age (SD)</td>
<td>31.2 (SD 4.1) Dutch origin (93.6%) Providers Community Midwife: 38.3% Hospital Midwife: 20.5% Obstetrician: 6.4% Combination: 34.8%</td>
<td>Included: Gave birth &lt; 1 year; attended by a hospital or community midwife or OB in the intrapartum period Excluded: Aged ≤16 years</td>
<td>MADM and MORI (Dutch); patient reported</td>
<td>Gave birth &lt; 1 year prior to filling out the survey</td>
<td>Adapted and psychometric evaluation of the measures of MADM (7 items), MORI (14 items), and translated CEQ2.0 (22 items)</td>
<td>Unclear, but appears to be normal MADM and MORI, and CEQ2.0 1-4</td>
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</table>

**Content validity:** focus group of n=10 women; item validity (i-CVI ≥0.78) and scale content validity (s-CVI ≥0.9) indicate relevance

**Reproducibility (unclear):** Pearson’s correlation (r) between MADM and MORI scores

**Reliability:** Cronbach’s alpha (≤0.70 considered satisfactory)

**Construct validity:** known group validity (Mann-Whitney, Kruskal Wallis or Student T-tests) with hypotheses

**Convergent validity:** Spearman rank correlations between the MADM, MORI and/or CEQ2.0 (0.4-0.59 as moderate, 0.60-0.79 as strong, 0.80-1.0 as very strong)
<table>
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<tr>
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</table>
| Quality of Respectful Maternity Care Questionnaire in Iran (QRMCQI) | Taavoni, 2018 | Mixed methods | In-person and survey (N=453) | Iran | NR | Included: women referred to health centers <30 days after recruitment from hospital for after-care services of delivery; no experience of severe stress or high anxiety <8 weeks; mentally and physically healthy; no drug use | Developed 59-item questionnaire for Iranian women, informed by WHO, Bowser & Hill; patient-reported | NR | Developed a survey (51 of 59 questions on L&D) using confirmatory and content factor analysis and reliability | Item generation: literature review  
Face validity: n=4 experts, impact score (>1.5 indicated importance of question)  
Content validity: n=20 experts, calculating content validity ratio (≥0.42) and index (≥0.79) indicates sufficiency; Kappa as a supplement to CVI (moderate or higher agreement, ≥0.40)  
Confirmatory factor analysis: Kaiser-Meyer-Olkin index (>0.50)  
Internal consistency: Cronbach’s alpha (≥0.70 is acceptable) |
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<tr>
<td>23 Item Respectful Maternity Care Scale (23i-RMC) - Verbal abuse-free, Discriminatory-free and Dignified care (VADDC), Physical and Psychological Abuse-free care (PPAC), and Compassionate Care (CC)</td>
<td>Dzomeku, 2020</td>
<td>Cross-sectional Survey (N=263)</td>
<td>Ghana</td>
<td>Majority (62.7%) were aged 25-34</td>
<td>Included Women in the postpartum unit at the hospital</td>
<td>23 Item Respectful Maternity Care Scale (23i-RMC); patient-reported</td>
<td>Postpartum period</td>
<td>Adapted scale into 3 domains and 23 items from originally 42 using exploratory factor analyses and inter-item reliability tests</td>
<td>NR</td>
<td>Internal Consistency: Inter-item reliability (of subscales and full questionnaire. Tested with Cronbach’s alpha ≥0.70, validity (Spearman’s rank correlation), relationship between components and education (Kruskal Wallis test).</td>
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<tr>
<td>Persian version of the Respectful Maternity Care (RMC), developed by Sheferaw</td>
<td>Esmkhani, 2021</td>
<td>Cross-sectional Survey (N=150)</td>
<td>Iran</td>
<td>Mean age (SD), 28.9 (6.2); Mode of birth Vaginal: 37% Cesarean: 63%</td>
<td>Included Women of any age in adequate psychi</td>
<td>Persian version of the RMC questionnaire (15 items); patient reported</td>
<td>Postpartum period (&lt;48 h after birth)</td>
<td>Assessed the use the Respectful Maternity Care Questionnaire for use in Iran with validity and reliability</td>
<td>NR</td>
<td>Construct validity (confirmatory and exploratory factor analyses), content validity: n=10 expert interviews Internal consistency: “test-retest” method. No specific threshold mentioned for Cronbach’s alpha, Pearson’s correlation.</td>
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<td>RMC scale (15-item)</td>
<td>Sheferaw, 2016&lt;sup&gt;13&lt;/sup&gt;</td>
<td>Mixed methods In-person and survey (N=509)</td>
<td>Ethiopia</td>
<td>Mean age (SD) 27.4 (4.8) Birth mode Vaginal: 51% Cesarean: 12.3% Episiotomy: 36.7%</td>
<td>Included: postpartum women who delivered in urban, public health facilities &lt;7 weeks prior to data collection</td>
<td>Questionnaire to assess RMC in Ethiopia; patient-reported</td>
<td>Postpartum (&lt;7 weeks)</td>
<td>Development and validation of a 15-item scale using exploratory factor analysis (principal component analysis)</td>
<td>NR</td>
<td>Item generation: literature review, interviews n=8 women, n=5 experts Pilot test: n=40 women Factor analysis: EFA using PCA (KMO index ≥0.6 for sampling adequacy) and Bartlett’s test, unidimensional Content validation / face validity: literature review, item generation interviews Criterion validity: satisfaction with overall service, recommendation to others Construct validity: Pearson’s correlation (≥0.70), known group validity Internal consistency: Cronbach’s alpha (≥0.70)</td>
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<tr>
<td>Women’s Perceptio n- Respectfu l Maternity Care (WP-RMC) Questionn aire</td>
<td>Ayoubi, 2020&lt;sup&gt;15&lt;/sup&gt;</td>
<td>Cross-sectional Survey (N=400)</td>
<td>Iran</td>
<td>Mean age (SD), 27.9 (6.5)</td>
<td>Included: Postpartum women who had a low risk pregnancy, normal vaginal childbirth and gave birth to a healthy baby with normal birth weight</td>
<td>WP-RMC Questionnaire with 19 items; face, content and construct validity and reliability; patient reported</td>
<td>Postpartum</td>
<td>Development of a 19-item scale using content validity, exploratory factor analysis, principal component analysis, reliability</td>
<td>NR</td>
<td>Content validity: panel (n=10 experts), Content Validity Index (≥0.79 as acceptable) Face validity: qual interview (n=10 women), impact score (≥1.5 to keep item) Construct validity: EFA using PCA (n=400 women), factor loading ≥0.3 as appropriate. Internal consistency: (Cronbach’s alpha ≥0.70 as satisfactory) and test-re-test (ICC ≥0.61 substantial)</td>
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| Tools that focus on childbirth, or do not directly discuss RMC | CEQ2.0 | Dencker, 2020<sup>16</sup> | Good | Cross-sectional Survey (N=682) | Sweden | Mean age (SD), 31.4 (4.6) Primiparous: 46.9% Mode of birth Spontaneous vaginal birth: 87.4% Instrumental: 5.7% Emergency cesarean: 6.7% | Included: Women with spontaneous onset of labor, presenting for postpartum checkup at 3 maternity department | Childbirth Experience Questionnaire 2.0; patient-reported | Postpartum (3-4 weeks) | Developed and validated original CEQ with 11 new items plus 14 original items (out of 22 original items) | Revised | Face validity: pilot test with 8 postpartum women and 1 midwife  
Construct validity: Confirmatory factor analysis: RMSEA and others, population subset (n=615); good fit reported  
Known groups validity (Discriminant validity) Evaluation of scores between groups based on patient characteristics; scores higher in spontaneous vaginal birth, multiparous women, without augmentation, and labor <12 hours.  
Internal consistency: Cronbach’s alpha (>0.70) Good for all subscales (0.82, 0.83, 0.76 and 0.73) and for the total scale (0.91)
<table>
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<th>Validated Tool</th>
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<th>Author (Year) Quality</th>
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<tr>
<td>CEQ2.0 (Farsi)</td>
<td>Cross-sectional Survey (N=500) Pilot test (n=20)</td>
<td>Ghanbari-Homayi, 2019 [10] Good</td>
<td>Iran</td>
<td>Mean age (SD), 23.5 (4.8) Abortion history: 16.8% Episiotomy: 98.8% Included Primiparous women aged ≥18 years, gestational week 38-42 weeks and vaginal childbirth Excluded: women with obstetric problems, elective or unplanned cesarean, mental disability, deaf-mute, history of depression or postpartum depression, use of antidepressants, major congenital anomalies</td>
<td>Validation of CEQ2.0 in Farsi, using content validity, reliability</td>
<td>Postpartum (4-16 weeks)</td>
<td>Validation of the CEQ2.0 in Farsi for an Iranian context</td>
<td>NR</td>
<td>Face/content validity: Qualitative interviews with n=10 experts; item impact method (impact score &gt;1.5 considered valid) <strong>Construct validity:</strong> Content Validity Ratio and Content Validity Index (&gt;0.62 and &gt;0.79, respectively, considered valid); exploratory factor analysis (KMO and Bartlett &gt;0.7, Eigen value, Screen plot, Principal Axis Factoring &gt;0.3), confirmatory factor analysis (RMSEA), discriminant validity <strong>Reliability:</strong> Cronbach’s alpha (&gt;0.7 considered reliable); test-retest with 20 women, Intra-correlation coefficient (0.6-0.8 considered good, &gt;0.8 excellent)</td>
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<td>CEQ2 (birth experience)</td>
<td>Hajizadeh, 2020</td>
<td>Prospective cohort In-person and survey (N=334)</td>
<td>Iran</td>
<td>Majority age 26-35 years (8.5%) Birth attendant Midwife: 23.1% OB: 59.6% Student: 4.8% Personal physician or midwife: 12.6%</td>
<td>Included: Women with live vaginal birth Excluded: Deaf or mute, history of mental health disorders, significant stress &lt;3 months of study</td>
<td>Sheferaw (4 domains, 15 items) for RMC and CEQ (4 domains, 22 statements) for childbirth experience</td>
<td>Immediate postpartum (6-18 hours) and 30-45 days</td>
<td>Developed questionnaire in Farsi; tested face and content validities (CEQ2.0 previously validated in Farsi)</td>
<td>Measured RMC and CEQ2.0 on scale 0-100, with 100 indicating positive experience</td>
<td>Face / content validity: mentioned but method NR, n=10 experts</td>
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<tr>
<td>Tools focused on childbirth or not directly focused on RMC</td>
<td>CEQ (Malay)</td>
<td>Kalok, 2022</td>
<td>Cross-sectional Survey (N=246)</td>
<td>Malaysia</td>
<td>Mean age (SD), 31.8 (4.8); &lt;35 years 68.3% Ethnicity: Malay: 86.2% Chinese: 9.8% Indian: 3.3% Primiparous: 50.8% Labor onset: Spontaneous: 85.4% Induction: 14.6% Mode of delivery: Vaginal: 63% Operative: 37% Hospital stay ≤3 days: 59.3%</td>
<td>Included: Women aged ≥18 who underwent labor at term (≥37 weeks) Excluded: Women with stillbirth or abnormal fetuses, planned cesarean, not literate in Malay</td>
<td>CEQ in Malay; patient-reported</td>
<td>Postpartum</td>
<td>Validate Malay version of CEQ (22 items, 4 domains) and make it compatible for electronic administration</td>
<td>Domains 1-4, with higher ratings indicating better experience</td>
<td>Face validity: review by team of experts; 52 postpartum women Internal consistency: Cronbach’s alpha value of 0.77 (good) overall; Construct validity EFA: The models’ goodness-of-fit statistics revealed that none of them were overall well-fitting, Discriminant validity: known-groups validation, Women who had spontaneous vaginal delivery scored higher in the overall CEQ-My</td>
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<td>Childbirth Questionnaire to evaluate labor experience</td>
<td>Walker, 2015&lt;sup&gt;18&lt;/sup&gt;</td>
<td>Prospectivcohortsurvey (N=206 completed Survey 1; 132 returned Survey 2)</td>
<td>UK</td>
<td>Mean age (SD), 29 (5.4) Mode of birth: Normal vaginal: 49% Instrumental: 32% Cesarean: 19% Labor onset: Spontaneous: 64% Induced: 36%</td>
<td>Included: Women aged ≥18 years, primiparous, singleton, labored at term (≥37+0 weeks) Excluded: women whose babies who died, unexpectedly admitted to NICU</td>
<td>CEQ; patient-reported</td>
<td>Postpartum (1 month, 6 weeks)</td>
<td>CEQ (4 domains, 22 items) assessing the childbirth experience.</td>
<td>CEQ standard; Higher total and subscale scores in women with vaginal delivery; Higher scores for specific subscales observed based on labor duration</td>
<td>Face validity: n=25 women Construct validity: known group validity using Mann-Whitney U-test, Cohen effect sizes Criterion validity: Pearson correlation for CEQ and Maternity Survey scores (moderate or higher, ≥0.36) Internal consistency using Cronbach’s alpha was ≥0.70 for all subscales Reproducibility test-retest: using weighted kappa of 0.68 demonstrated test-retest reliability of the CEQ (substantial agreement)</td>
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<td>Childbirth Questionnaire 2.0 to evaluate labor experience</td>
<td>Walker, 2020&lt;sup&gt;19&lt;/sup&gt;</td>
<td>Prospectivcohortsurvey (N=475)</td>
<td>UK</td>
<td>Mean age (SD), 29 (5.2) Mode of birth Spontaneous vaginal delivery: 44% Instrumented: 34% Cesarean: 22% Labor duration &gt;12 hours 21%, Augmentations use 52%; NICU admission 3%</td>
<td>Included: Women aged ≥18 years, primiparous, singleton, labored at term (≥37+0 weeks) Excluded: women whose babies who died, unexpectedly admitted to NICU</td>
<td>CEQ2.0; patient-reported</td>
<td>Postpartum (1 month, 6 weeks)</td>
<td>CEQ2.0 (4 domains, 22 items) assessing the childbirth experience</td>
<td>0-100, with higher scores indicating better experience</td>
<td>Face validity: n=25 women Construct validity: known group validity using Mann-Whitney U test Criterion validity: Pearson correlation for CEQ2.0 and Maternity Survey scores (moderate or higher, ≥0.36) Internal consistency using Cronbach’s alpha (≥0.70) Reproducibility test-retest using weighted Kappa (moderate agreement or higher ≥0.41)</td>
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<td>Mother-centered Prenatal Care scale (MCPC), informed by Listening to Mothers 3 (LTM3) and Changing Childbirth in British Columbia (CCinBC)</td>
<td>Rubashki, 2017</td>
<td>Poor</td>
<td>Cross-sectional Survey (N=657)</td>
<td>Hungary</td>
<td>Mean age (SD), 33.3 (4.96)</td>
<td>Included Women aged 18–45 with children under the age of 5</td>
<td>Adapted two instruments (LTM3 and CCinBC) to create and validate a new instrument for use in Hungary; patient-reported</td>
<td>Postpartum</td>
<td>Combined two tools into a single survey (111 items) in Hungarian</td>
<td>Content Validity: Experts validated comprehensiveness and regional specificity; item-level Content Validity Index scores (≥0.80)</td>
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<tr>
<td>Develop and validate Person Centered Maternity Care (PCMC) 30-item scale</td>
<td>Afulani, 2017</td>
<td>Fair</td>
<td>Multistep tool development and psychometric study N=1,387</td>
<td>Kenya, India</td>
<td>Mean age (SD) 25.2 (5.5); Mean parity 2.5 pregnancies</td>
<td>Included: Women who had delivered in prior 9 weeks</td>
<td>30-item PCMC scale; patient-reported</td>
<td>Postpartum (&lt;1 to 9 weeks)</td>
<td>Development and psychometric testing of a 30-item PCMC scale using confirmatory factor analysis</td>
<td>Total score 0-90, higher score indicates more PCMC</td>
<td>Content validity: comprehensive literature search, expert review (n=6 and n=8), cognitive interviews Construct validity: EFA, KMO measure (≥0.5 for sampling adequacy), item loading (≥0.3 cutoff for initial stage, varied cutoffs for multiple rounds of factor analysis) Internal consistency (Cronbach’s alpha ≥0.70)</td>
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<td>Country</td>
<td>Patient Characteristics</td>
<td>Inclusion/ Exclusion Criteria</td>
<td>Measure/ Instrument; Type (e.g., Clinician Reported, Patient Reported)</td>
<td>Timing of Measurement (e.g., Immediately Postpartum); Followup</td>
<td>Evaluation Objectives</td>
<td>Interpretation, Score Range</td>
<td>Results of Psychometric Analyses</td>
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<tr>
<td>PCMC scale (27 items, informed by the 30-item PCMC scale from Kenya)</td>
<td>Afulani, 2018&lt;sup&gt;13&lt;/sup&gt;</td>
<td>Cross-sectional</td>
<td>N=2,018 Survey (n=2018)</td>
<td>India</td>
<td>Mean age (SD), 25 (4) Mean parity (SD), 2.2 (1.3) Pregnancy complications: 78.9% Rural: 85% (reported in text)</td>
<td>Included: 18-46 years who delivered in the 48 hours preceding the survey at participating public facilities; complete the survey in English, index</td>
<td>PCMC 27-item instrument; item mapping to evaluate validity; Patient-reported</td>
<td>Postpartum (within 48 hours)</td>
<td>Adapted and tested psychometric properties measuring person-centered maternity care tool in India, using exploratory and confirmatory factor analysis</td>
<td>Total score 0-81, higher score indicates more PCMC Psychometric analysis followed same process as Afulani, 2017</td>
<td>Content validity: literature review, expert reviews, cognitive interviews Construct validity: iterative EFA and CFA, KMO measure (≥0.5 for sampling adequacy), item loading (≥0.1 cutoff) Criterion validity: bivariate linear regression on whether woman would use same facility for future birth Internal consistency (Cronbach’s alpha ≥0.7)</td>
</tr>
<tr>
<td>PCMC scale (13 items)</td>
<td>Afulani, 2019&lt;sup&gt;14&lt;/sup&gt;</td>
<td>Cross-sectional</td>
<td>N=1,831 Survey (Kenya estimation sample n=710; confirmation sample n=709, Ghana estimation sample n=113; confirmation sample n=113, India estimation sample n=1009 and confirmation sample n=1009)</td>
<td>Kenya, Ghana, India</td>
<td>Mean age 26.6 Kenya: 38.7% Ghana: 6.2% India: 55.1%</td>
<td>Included: Women aged 15-49 years who had recently given birth (postpartum &lt;9 weeks for rural Kenya, &lt;1 week for urban Kenya, &lt;8 weeks for Ghana, and &lt;48 hours for India) in a health facility in Kenya, India, or Ghana</td>
<td>Developed 13-item PCMC scale in Kenya, Ghana, and India; patient-reported</td>
<td>Postpartum (&lt;48 hours in India; &lt;1 week in urban Kenya; &lt;8 weeks in Ghana; &lt;9 weeks in rural Kenya)</td>
<td>Adapted 30-item PCMC scale in three LMICs into 13 items using exploratory and confirmatory factor analysis to develop a shortened, valid and reliable scale applicable across multiple settings for routine monitoring of PCMC</td>
<td>Total score 0-39, higher score indicates more PCMC</td>
<td>Content validity: expert (n=96) prioritization of items, surveys Construct validity: iterative EFA, KMO measure calculated, item loading (&gt;0.30 and &lt;0.80 to be retained, lowered cutoff to &gt;0.10 for items with &gt;80% expert backing), CFA (RMSEA) and comparative fit index (CFI) Criterion validity: regression, intraclass correlation (ICC) analysis (p&lt;0.05) Internal consistency (Cronbach’s alpha ≥0.7)</td>
</tr>
<tr>
<td>Validated Tool</td>
<td>Scale or Tool to Measure RMC or Other</td>
<td>Author (Year)</td>
<td>Study Design, Sampling Method (n)</td>
<td>Country</td>
<td>Patient Characteristics</td>
<td>Inclusion/Exclusion Criteria</td>
<td>Measure/Instrument; Type (e.g., Clinician Reported, Patient Reported)</td>
<td>Timing of Measurement (e.g., Immediately Postpartum); Followup</td>
<td>Evaluation Objectives</td>
<td>Interpretation, Score Range</td>
<td>Results of Psychometric Analyses</td>
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</table>
| PCMC scale adapted for the US | Afulani, 2022[^11] | Cross-sectional N=297 Survey (n=297) Content validity: literature review, expert review (n=10 and n=20), cognitive interviews (n=15) | U.S. | Mean age (SD) 29 years (3.6) | Race White: 11.1% Black: 81.5% Asian: 1.7% Native/Pacific Islander: 1.0% Other/mixed: 1.7% | Ethnicity LatinX/Hispanic: 6.1% | Included: Individuals aged ≥15 years, given birth <1 year PCMC scale to assess content validity, relevance, comprehensiveness, and comprehensiveness of the PCMC items in the US; patient reported | Postpartum period | Adapted the 30-item PCMC scale, with particular focus on Black women to a 35-item scale, using construct/criterion validity and the internal reliability, and compared with MADM and MORI scores. Results in Table 3. | Total score 0-100, with 100 indicating the best PCMC | Construct validity: EFA, KMO measure calculated, iterative factor analysis, factor loading (≥3), uniqueness (≤0.8) Criterion validity: association of scales and subscales with constructs, association between scores on PCMC-U.S. and MADM and MORI (correlations, bivariate linear and logistic regression) Internal consistency (Cronbach’s alpha 0.95 for full scale; 0.87 for subscales)
<table>
<thead>
<tr>
<th>Validated Tool</th>
<th>Scale or Tool to Measure RMC or Other</th>
<th>Author (Year) Quality</th>
<th>Study Design, Sampling Method (n)</th>
<th>Country</th>
<th>Patient Characteristics</th>
<th>Inclusion/Exclusion Criteria</th>
<th>Measure/Instrument; Type (e.g., Clinician Reported, Patient Reported)</th>
<th>Timing of Measurement (e.g., Immediately Postpartum); Followup</th>
<th>Evaluation Objectives</th>
<th>Interpretation, Score Range</th>
<th>Results of Psychometric Analyses</th>
</tr>
</thead>
</table>
| Patient-Reported Experience Measure of Obstetric Racism (PREM-OB) Scale™ | White VanGompel, 2022 Fair | Mixed methods: Qualitative (n=36 Black birthing people, experts); Quantitative (n=806 Black birthing people; online survey) | U.S. | Age, years: 15-19: 3.4%; 20-34: 73.1%; 35-50: 23.4%; Race/ethnicity: Black-identifying mothers and birthing people; Mode of birth: Vaginal: 62.3%; Cesarean: 37.7% | Included: Self-identifying as a Black or African American woman or person; age ≥18 years; live birth in U.S. Jan. 1 – Dec. 31, 2020; Internet access; English language | PREM-OB Scale™, patient-reported | NR | Development and psychometric testing of the PREM-OB Scale™ suite (3 domains: Humanity, Racism, Kinship) using confirmatory factor analysis | Raw scores: | Racism (12 items): 12 to 60 Kinship (9 items): 9 to 45 Humanity (31 items): 31 to 155 | Content validity: Item pool construction described, modified delphi process, cognitive interviews used to construct item pool  
Construct validity: Dimensionality of item pool by confirmatory factor analysis: CFI >0.9; RMSEA; R² > .3; residual correlations <.20  
Criterion validity: Item Response Theory (IRT) scale score, humanity scale: 0.67 (0.49-1.04)  
Internal consistency: Cronbach’s alpha for humanity scale ≥ 0.96  
Calculated importance differences by domain, IRT scale score (range): Racism: 0.59 (0.45-0.90) Kinship: 0.64 (0.46-0.96) Humanity: 0.67 (0.49-1.04) |

Abbreviations: 23i-RMC=23-item RMC; CFA=confirmatory factor analysis; CFI=Comparative Fit Index; CVI=Content Validity Index; CVR=Content Validity Ratio; CEQ2.0=Childbirth Experience Questionnaire 2.0; CHOICES=Childbirth Options, Information, and Person-Centered Explanation tool; EFA=exploratory factor analysis; ICC=intraclass correlation; IRT=item response theory; KMO=Kaiser-Meyer-Olkin; L&D=labor and delivery; MADM=Mothers Autonomy in Decision Making scale; MCPC=Mother-Centered Prenatal Care scale; MORi=Mothers on Respect Index; NR=not reported; PCA=principal components analysis; PCC=person-centered care; PCMC=person-centered maternity care; PREM-OB=Patient-Reported Experience Measure-Obstetric Racism; QRMCQI=Quality of RMC Questionnaire in Iran; RMSEA=root mean square error of approximation; SDM-Q9=Shared Decision Making Questionnaire, 9 items; WHO=World Health Organization; WP-RMC=Women’s Perception-RMC
<table>
<thead>
<tr>
<th>Study Design</th>
<th>Country</th>
<th>Randomized / Analyzed</th>
<th>Inclusion / Exclusion</th>
<th>Framework / Model / Validated Instrument</th>
<th>RMC Definition</th>
<th>Population Characteristics</th>
<th>Funding</th>
<th>ROB Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCT</td>
<td>Iran</td>
<td>120 / 109</td>
<td>Inclusion: Laboring women in the active first stage of labor, 38-42 weeks’ gestation; no significant obstetric or medical pregnancy complications; admitted to the maternity teaching hospital in Koya, Iran Exclusion: High-risk pregnancy, mental health issues</td>
<td>EPDS (Kurdish): 10 items, maximum score of 30; score ≥10 indicates depressive disorder Effective communication (based on WHO): 10 items (score NR) RMC (Sheferaw, 2016): 15 items (score NR)</td>
<td>&quot;It is recommended that RMC, referring to women in labor, should be treated to maintain dignity, privacy, and confidentiality, ensure freedom from harm and mistreatment and make informed decisions to receive continuous support during labor and childbirth.&quot; (based on WHO definition)</td>
<td>A (intervention) vs. B (control)</td>
<td>Age category (years) &lt;20: 10% vs. 11.7% 20-29: 55% vs. 51.7% 30-39: 28.3% vs. 28.3% ≥40: 6.7% vs. 8.3% Mode of birth Spontaneous vaginal: 29% vs. 7% Induced vaginal: 63% vs. 78% Emergency cesarean: 7% vs. 15% Parity Primipara: 21.7% vs. 28.3% Multipara: 60% vs. 53.3% Grand multipara: 18.3% vs. 18.3% Home Urban: 53.3% vs. 53.3% Suburban: 36.7% vs. 41.7% Rural: 10% vs. 5% Misc Planned pregnancy: 65% vs. 70% NICU admission: 5% vs. 8.3%</td>
<td>No funding</td>
</tr>
</tbody>
</table>
Table C-4. Key Question 2: study outcomes

<table>
<thead>
<tr>
<th>Author, Year</th>
<th>Intervention</th>
<th>Comparator</th>
<th>Instruments</th>
<th>Outcomes: KQ2 (Strategies)</th>
<th>Outcomes: KQ3 (Maternal)</th>
<th>Outcomes: KQ4 (Infant)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fares, 2021</td>
<td>Researcher and midwife implemented Effective Communication and RMC processes from admission to discharge (~8-10 hours spent with patient): accompanied women to private birthing room, provided education and instructions women to communicate needs (EC); ensured experienced midwife engaged in second stage of labor, provided information, emotional and physical care as labor progressed (RMC)</td>
<td>Routine care, including a non-private birthing room, no identified midwife, no additional education or information provision, researcher acted as observer only and did not engage in provision of care by hospital staff</td>
<td>RMC (Sheferaw, 2016) - 4 components with 15 items: friendly care (7 items), abuse free care (3 items), timely care (3 items), and discrimination-free care (2 items)</td>
<td>NA</td>
<td>Postpartum depression (EPDS ≥10), 6-8 weeks postpartum: 20% (11/55) vs. 50% (27/54), p=0.001</td>
<td>NA</td>
</tr>
</tbody>
</table>

EPDS = Edinburgh Postnatal Depression Scale; NR=not reported; RMC=respectful maternity care; WHO=World Health Organization
Table C-5. Contextual Question: respectful maternity care frameworks – disrespect and abuse

<table>
<thead>
<tr>
<th>Framework</th>
<th>Components/Categories</th>
<th>Description/Examples or Corresponding “Rights”</th>
<th>Countries/Regions</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bowser &amp; Hill (Disrespect and abuse [D&amp;A] during childbirth)</td>
<td>Physical Abuse</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>• Physical violence</td>
<td>• Freedom from harm</td>
<td>• Canada</td>
<td>Berhe, 2022</td>
</tr>
<tr>
<td></td>
<td>• Insufficient pain control</td>
<td></td>
<td>• Eastern Mediterranean Region</td>
<td>Bishanga, 2019</td>
</tr>
<tr>
<td></td>
<td>Non-Consented Care</td>
<td>• Unwanted or unconsented procedures or interventions</td>
<td>• Ethiopia</td>
<td>Clark, 2022</td>
</tr>
<tr>
<td></td>
<td>• Limited information</td>
<td>• Right to information</td>
<td>• Latin America and the Caribbean</td>
<td>de Kok, 2020</td>
</tr>
<tr>
<td></td>
<td>• Right to information</td>
<td>• Patient choice</td>
<td>• Malawi</td>
<td>Ige, 2021</td>
</tr>
<tr>
<td></td>
<td>• Freedom from coercion</td>
<td></td>
<td>• Nigeria</td>
<td>Ishola, 2017</td>
</tr>
<tr>
<td></td>
<td>Non-Confidential Care</td>
<td>• Health systems conditions/constraints</td>
<td>• Tanzania</td>
<td>Khalil, 2017</td>
</tr>
<tr>
<td></td>
<td>• Lack of privacy</td>
<td>• Right to confidentiality, privacy</td>
<td></td>
<td>Kruk, 2018</td>
</tr>
<tr>
<td></td>
<td>Non-Dignified Care</td>
<td>• Verbal abuse, psychological abuse</td>
<td></td>
<td>Kujawski, 2017</td>
</tr>
<tr>
<td></td>
<td>• Poor rapport between women/providers</td>
<td>• Failure to meet professional standards of care</td>
<td></td>
<td>Mengistie, 2022</td>
</tr>
<tr>
<td></td>
<td>• Not offered birth position choice</td>
<td>• Patient dignity and respect</td>
<td></td>
<td>Mihret, 2020</td>
</tr>
<tr>
<td></td>
<td>Discrimination</td>
<td>• Equality and equitable care</td>
<td></td>
<td>Minckas, 2021</td>
</tr>
<tr>
<td></td>
<td>• Respect for language, culture</td>
<td>• Lack of companion present</td>
<td></td>
<td>Okedo-Alex, 2021</td>
</tr>
<tr>
<td></td>
<td>Abandonment of Care</td>
<td>• Neglect</td>
<td></td>
<td>Okedo-Alex, 2021b</td>
</tr>
<tr>
<td></td>
<td>• Timely care</td>
<td>• Highest level of care</td>
<td></td>
<td>Ratcliffe, 2016</td>
</tr>
<tr>
<td></td>
<td>• Right to companionship</td>
<td>• Right to companionship</td>
<td></td>
<td>Sando, 2016</td>
</tr>
<tr>
<td></td>
<td>Detention (in Facilities)</td>
<td>• Patient autonomy, self-determination</td>
<td></td>
<td>Savage, 2017</td>
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<td></td>
<td></td>
<td></td>
<td>Solnes Miltenburg, 2018</td>
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<td></td>
<td></td>
<td>Wilson-Mitchell, 2018a</td>
</tr>
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<td></td>
<td></td>
<td>Wilson-Mitchell, 2018b</td>
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Table C-6. Contextual Question: respectful maternity care frameworks – rights-based frameworks

<table>
<thead>
<tr>
<th>Framework</th>
<th>Components/Categories</th>
<th>Description/Examples or Corresponding “Rights”</th>
<th>Countries/Regions</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bohren (mistreatment during childbirth [MDC])</strong>&lt;sup&gt;21&lt;/sup&gt;</td>
<td>Physical abuse • Use of force or restraint Sexual abuse Verbal abuse • Harsh language, threats Stigma and discrimination • Discrimination due to sociodemographic characteristics • Discrimination due to medical conditions Failure to meet professional standards of care • Lack of consent, confidentiality • Unnecessary physical exam or procedure • Neglect, abandonment Poor rapport between women and providers • Ineffective communication • Lack of supportive care • Lack of autonomy Health system conditions, constraints • Lack of policies • System/facility culture</td>
<td>• Canada • Ethiopia • India • Iran • Kenya • Malawi • Netherlands • Poland • Switzerland • Tanzania • USA • Zimbabwe</td>
<td>• Abuya, 2018&lt;sup&gt;86&lt;/sup&gt; • Afulani, 2021&lt;sup&gt;87&lt;/sup&gt; • Ayoubi, 2020&lt;sup&gt;15&lt;/sup&gt; • Baranowska, 2021&lt;sup&gt;88&lt;/sup&gt; • Geddes, 2017&lt;sup&gt;89&lt;/sup&gt; • Kanengoni, 2019&lt;sup&gt;90&lt;/sup&gt; • Lalonde, 2019&lt;sup&gt;91&lt;/sup&gt; • Lusambili, 2020&lt;sup&gt;92&lt;/sup&gt; • Meyer, 2022&lt;sup&gt;93&lt;/sup&gt; • Morton, 2018&lt;sup&gt;94&lt;/sup&gt; • Rubashkin, 2018&lt;sup&gt;95&lt;/sup&gt; • Sharma, 2019&lt;sup&gt;96&lt;/sup&gt; • Sheferaw, 2019&lt;sup&gt;97&lt;/sup&gt; • Shrivastava, 2020&lt;sup&gt;98&lt;/sup&gt; • Solnes Miltenburg, 2018&lt;sup&gt;83&lt;/sup&gt; • van der Pijl, 2020&lt;sup&gt;100&lt;/sup&gt; • Sheferaw, 2019&lt;sup&gt;97&lt;/sup&gt; • van der Pijl, 2021&lt;sup&gt;101&lt;/sup&gt;</td>
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</tbody>
</table>

Abbreviations: D&A = disrespect and abuse; MDC = mistreatment during childbirth

<table>
<thead>
<tr>
<th>Framework</th>
<th>Components/Categories</th>
<th>Description/Examples or Corresponding “Rights”</th>
<th>Countries / Regions</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>White Ribbon Alliance (RMC charter), 2011</strong>&lt;sup&gt;26&lt;/sup&gt;</td>
<td>Freedom from harm and ill treatment • Use of medically indicated, evidence-based interventions • Avoidance of harmful practices • Effective pain relief options Dignity, respect • Culturally competent care – beliefs, traditions, culture • Respect for personhood, feelings, experiences</td>
<td>• Canada • Ethiopia • India • Iran • Kenya • Latin America and the Caribbean</td>
<td>• Ansari, 2020&lt;sup&gt;102&lt;/sup&gt; • Asefa, 2020&lt;sup&gt;23&lt;/sup&gt; • Asefa, 2020&lt;sup&gt;84&lt;/sup&gt; • Dhakal, 2022&lt;sup&gt;105&lt;/sup&gt; • Gebregziabher, 2022&lt;sup&gt;106&lt;/sup&gt; • Ige, 2022&lt;sup&gt;107&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Framework</td>
<td>Components/Categories</td>
<td>Countries / Regions</td>
<td>References</td>
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</tr>
<tr>
<td></td>
<td>• Respectful language</td>
<td>Malawi</td>
<td>Jolivet, 2021&lt;sup&gt;109&lt;/sup&gt;</td>
<td></td>
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<tr>
<td></td>
<td>• Empathy and sensitivity for loss or bereavement</td>
<td>Nepal</td>
<td>Jones, 2022&lt;sup&gt;109&lt;/sup&gt;</td>
<td></td>
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<tr>
<td></td>
<td>Right to information, informed consent, respect for choices, companionship</td>
<td>Nigeria</td>
<td>Lalonde, 2019&lt;sup&gt;11&lt;/sup&gt;</td>
<td></td>
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<tr>
<td></td>
<td>• Freedom of movement and birth position</td>
<td>Tanzania</td>
<td>Lusambili, 2020&lt;sup&gt;92&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Companion present</td>
<td>UK</td>
<td>Mdoe, 2021&lt;sup&gt;110&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Shared decision making</td>
<td></td>
<td>Moridi, 2020&lt;sup&gt;111&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Confidentiality, privacy</td>
<td></td>
<td>Moridi, 2020&lt;sup&gt;112&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Private room, screens, space</td>
<td></td>
<td>Mselle, 2018&lt;sup&gt;113&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Do not share patient information unless indicated</td>
<td></td>
<td>Okedo-Alex, 2021&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Equality, freedom from discrimination, equitable care</td>
<td></td>
<td>Pathak, 2020&lt;sup&gt;114&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Adhere to non-discrimination policies</td>
<td></td>
<td>Ratcliffe, 2016&lt;sup&gt;10&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Equal respect and dignity for all patient populations regardless of personal background or attributes</td>
<td></td>
<td>Savage, 2017&lt;sup&gt;12&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Right to timely and high-quality healthcare</td>
<td></td>
<td>Sharma, 2022&lt;sup&gt;15&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Prompt attention to medical needs, comfort care, care coordination</td>
<td></td>
<td>Taavoni, 2018&lt;sup&gt;18&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Liberty, autonomy, self-determination; freedom from coercion</td>
<td></td>
<td>Wilson-Mitchell, 2018&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>USAID RMC</td>
<td>Physical harm and ill-treatment</td>
<td>India</td>
<td>Raval, 2021&lt;sup&gt;116&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>standards, 2012&lt;sup&gt;25&lt;/sup&gt;</td>
<td>Right to information, informed consent, preferred choice</td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Confidentiality and privacy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dignity and respect</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Equitable care, free of discrimination</td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Left without care</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Detained or confined against her will</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maternal and</td>
<td>Friendly care</td>
<td>Ethiopia</td>
<td>Amsalu, 2022&lt;sup&gt;117&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Child Health</td>
<td>• Treated in a friendly manner</td>
<td>Iran</td>
<td>Bante, 2020&lt;sup&gt;118&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Integrated</td>
<td>• Showing concern and empathy</td>
<td>Malawi</td>
<td>Dhakal, 2022&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Program (MCHIP), 2013&lt;sup&gt;30&lt;/sup&gt;</td>
<td>• Talking positively about pain and relief</td>
<td>Nepal</td>
<td>Ferede, 2022&lt;sup&gt;119&lt;/sup&gt;</td>
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<td></td>
<td>Abuse free care</td>
<td>Zambia</td>
<td>Hajizadeh, 2020&lt;sup&gt;a&lt;/sup&gt;</td>
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<td></td>
<td>• Physical abuse</td>
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<sup>108</sup> Jolivet, 2021<sup>108</sup>  
<sup>109</sup> Jones, 2022<sup>109</sup>  
<sup>11</sup> Lalonde, 2019<sup>11</sup>  
<sup>92</sup> Lusambili, 2020<sup>92</sup>  
<sup>110</sup> Mdoe, 2021<sup>110</sup>  
<sup>111</sup> Moridi, 2020<sup>111</sup>  
<sup>112</sup> Moridi, 2020<sup>112</sup>  
<sup>113</sup> Mselle, 2018<sup>113</sup>  
<sup>b</sup> Okedo-Alex, 2021<sup>b</sup>  
<sup>114</sup> Pathak, 2020<sup>114</sup>  
<sup>10</sup> Ratcliffe, 2016<sup>10</sup>  
<sup>12</sup> Savage, 2017<sup>12</sup>  
<sup>15</sup> Sharma, 2022<sup>15</sup>  
<sup>18</sup> Taavoni, 2018<sup>18</sup>  
<sup>a</sup> Wilson-Mitchell, 2018<sup>a</sup>  
<sup>25</sup> USAID RMC standards, 2012  
<sup>30</sup> Maternal and Child Health Integrated Program (MCHIP), 2013.
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<tr>
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<th>Components/Categories</th>
<th>Countries / Regions</th>
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<td>WHO, 2014 (International human rights and mistreatment of women during childbirth)</td>
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<td>Brazil</td>
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<td>Mexico</td>
<td>Smith, 2022&lt;sup&gt;123&lt;/sup&gt;</td>
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<td>Tanzania</td>
<td>Yosef, 2020&lt;sup&gt;124&lt;/sup&gt;</td>
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<td>Dzomeku, 2020&lt;sup&gt;125&lt;/sup&gt;</td>
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<td>Gebremichael, 2018&lt;sup&gt;126&lt;/sup&gt;</td>
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<td>Sacks, 2022&lt;sup&gt;127&lt;/sup&gt;</td>
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<td>Valente, 2021&lt;sup&gt;128&lt;/sup&gt;</td>
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<td>Right to effective remedy</td>
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<td>Received professional standard of care</td>
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<td>Treatment by HCW</td>
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<td>Explanations of procedures</td>
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<td>Updates on status and labor progress</td>
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<td>Detention free care</td>
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<td>Abandonment</td>
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<tr>
<td></td>
<td>Right to non-discrimination</td>
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<tr>
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<td>Not stigmatized or discriminated</td>
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<td>Right to effective remedy</td>
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<td>Components/Categories</td>
<td>Countries / Regions</td>
<td>References</td>
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<tr>
<td>---------------------------------</td>
<td>---------------------------------------------------------------------------------------</td>
<td>---------------------</td>
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</tbody>
</table>
| Black Mamas Matter, 2016, 2018  | Respect  
                Information/knowledge  
                Access to care  
                                Availability of health care facilities and services  
                                Accessibility  
                                Physical and economic accessibility  
                Respect  
                Discrimination free care  
                                Non-discrimination  
                                Reproductive justice  
                                Equitable care  
                                Quality of care  
                                Equity  
                                Systems accountability  
                                Transparency | USA                 | Green, 2021<sup>129</sup> |
| WHO, 2018<sup>29</sup>          | Dignity  
                Privacy and confidentiality  
                Freedom from harm and mistreatment  
                Informed choice  
                Continuous support during labour and childbirth | Global              | World Health Organization, 2018<sup>29</sup> |
| Person Centered Care initiative (PCC), 2018<sup>38</sup> | Autonomy  
                Supportive Care  
                Social Support  
                Privacy/confidentiality  
                Health facility environment  
                                Evidence based care  
                                Use of appropriate technology  
                                Actionable information systems  
                                Functional referral systems  
                                Adequate infrastructure, human resources, supplies and medicine  
                                Integrated care  
                                Dignity  
                                Communication  
                                Trust | Global              | Rubashkin, 2018<sup>95</sup> |
<table>
<thead>
<tr>
<th>Framework</th>
<th>Components/Categories</th>
<th>Countries / Regions</th>
<th>References</th>
</tr>
</thead>
</table>
| **Typology of RMC**<sup>19</sup>, 2018 | Free from harm and mistreatment  
Maintaining privacy and confidentiality  
Preserving dignity  
Information and informed consent  
Quality of physical environment and resources  
Safe and secure environment  
Equitable care  
Effective communication  
Verbal and nonverbal communication  
Respect for choices  
Attitudes of health care providers  
Respecting cultures and values  
Competent human resources  
Efficient and effective care  
Minimal interventions  
Continuity of care | • Ethiopia  
• Ghana  
• Global  
• Nepal  
• Nigeria  
• Turkey  
• USA | • Butler, 2020<sup>130</sup>  
• Chinkam, 2022<sup>131</sup>  
• Dhakal, 2022<sup>b</sup>132  
• Dzomeku, 2022<sup>c</sup>133  
• Esan, 2022<sup>d</sup>134  
• Melkamu, 2021<sup>e</sup>135  
• Shakibazadeh, 2018<sup>f</sup>19  
• Camlibel, 2023<sup>g</sup>136 |
| **Australian guidelines for woman centered maternity care, 2019**<sup>10</sup> | Safety  
Evidence based, individualized information and appropriate care  
Culturally safe and responsive care in preferred language  
Workforce that is responsive, competent, resourced, reflects cultural diversity  
Respect  
Dignity and respect  
Holistic, encompasses physical, emotional, psychosocial, spiritual, cultural needs  
Respectful communication and collaboration  
Choice  
Informed decisions and choices about care  
Respect for patient choices and preferences  
Access  
Appropriate care  
Continuity of care  
Health information, support and treatment | • Australia | • Eklom, 2021<sup>137</sup>  
• Jenkinson, 2021<sup>16</sup>  
• Davis, 2021<sup>138</sup> |
| **AWHONN (guideline), 2022**<sup>21</sup> | Freedom from harm and mistreatment  
Autonomy  
Shared decision making  
Dignity  
Mutual respect  
Accountability  
Provision of care  
Informed consent | • USA | |

Abbreviations: AWHONN=Association of Women’s Health, Obstetric Neonatal Nurses; MCHIP=Maternal and Child Health Integrated Program; PCC=Person-Centered Care; RMC=respectful maternity care; WHO=World Health Organization
# Appendix D. Risk of Bias Tables

## Table D-1. Key Question 1: quality assessment of studies of validated tools

<table>
<thead>
<tr>
<th>Focus of Tool: RMC or Other</th>
<th>Author, Year</th>
<th>Instrument</th>
<th>Enrollment (Eligibility Prespecified; Consecutive or Random)</th>
<th>Population (Demographic Data, Inclusion, Exclusion Criteria)</th>
<th>Tool Evaluation: Content Validity</th>
<th>Tool Evaluation: Criterion Validity</th>
<th>Tool Evaluation: Construct Validity</th>
<th>Tool Evaluation: Reliability - Internal Consistency</th>
<th>Tool Evaluation: Reliability - Reproducibility</th>
<th>Overall Quality</th>
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<tr>
<td>Hajizadeh, 2023[^11]</td>
<td></td>
<td>DAQ</td>
<td>Yes; Convenience sampling</td>
<td>Yes</td>
<td>Yes</td>
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<td>Yes</td>
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<tr>
<td>Feijen-de Jong, 2020[^19]</td>
<td></td>
<td>MORi / MADM (Dutch)</td>
<td>Yes; Convenience sample</td>
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<td>Fair</td>
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<td>Jenkinson, 2021[^16]</td>
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<td>RMC in Queensland</td>
<td>Yes; Convenience sample</td>
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<td>Peters, 2022[^14]</td>
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<td>MADM, MORi, CEQ2.0 (Dutch), intrapartum</td>
<td>Yes; Convenience sample</td>
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<td>NR</td>
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<td>Yes</td>
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<td>Vedam, 2017[^46]</td>
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<td>Yes; Convenience sample</td>
<td>Yes</td>
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<td>NR</td>
<td>NR</td>
<td>Yes</td>
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<td>Fair</td>
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<tr>
<td>Vedam, 2017[^47]</td>
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<td>MORi</td>
<td>Yes; Convenience sample</td>
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<td>Yes</td>
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<td>Unclear</td>
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<td>Dzomeku, 2020[^37]</td>
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<td>Tool Evaluation: Reliability - Reproducibilityb</td>
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<td>White VanGompel, 2022</td>
<td>PREM-OBTM Scale suite 52-item scale</td>
<td>Yes; convenience sample</td>
<td>Yes</td>
<td>Yes</td>
<td>Unclear</td>
<td>Yes</td>
<td>Yes</td>
<td>NR</td>
<td>Fair</td>
</tr>
</tbody>
</table>

Abbreviations: 23i-RMC=23-item RMC; CCinBC=Changing Childbirth in BC; CEQ-2/2.0=Childbirth Experience Questionnaire 2.0; CHOICES=Childbirth Options, Information, and Person-Centered Explanation tool; LTM3=Listening to Mothers 3; MADM=Mothers Autonomy in Decision Making scale; MCPC=Mother-Centered Prenatal Care Scale; MORi=Mothers on Respect Index; PCMC=Person-Centered Maternity Care; PREM-OBTM=Patient-reported Experience Measure-Obstetric Racism; QRMCQI=Quality of RMC Questionnaire in Iran; RMC=Respectful Maternity Care; WEMCS: Women’s Experience of Maternity Care Scale; WP-RMC=Women’s Perception-RMC

* Criterion validity is rated as "unclear" for studies reporting this because there is not an accepted "gold standard" for comparison. This did not impact the overall quality rating.

b Reporting of reproducibility did not impact overall rating.

c Hypothesis regarding race and levels of autonomy/respect; Model fit – OK, values Z-standardized values > −2 and < 2 (based on Beecher 2021); convergent validity with MADM, MORi, but discussed as confirmatory validity.
### Table D-2. Key Question 2: quality assessment (risk of bias) (1 of 2)

<table>
<thead>
<tr>
<th>Author, Year</th>
<th>Randomization Adequate?</th>
<th>Allocation Concealment Adequate?</th>
<th>Groups Similar at Baseline?</th>
<th>Patient Masked?</th>
<th>Care Provider mMasked?</th>
<th>Outcome Assessors Masked?</th>
<th>Reporting of Attrition and Crossovers?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fares, 2021</td>
<td>Unclear</td>
<td>Unclear</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Unclear</td>
<td>Yes - attrition</td>
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</table>

### Table D-3. Key Question 2: quality assessment (risk of bias) (2 of 2)

<table>
<thead>
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<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes (9.2%, 11/120)</td>
<td>Yes (8% vs. 10%, 5/60 vs. 6/60)</td>
<td>Yes (per protocol, but &lt;20% overall attrition)</td>
<td>Yes</td>
<td>Moderate</td>
</tr>
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</table>
**Appendix E. Excluded Studies**

<table>
<thead>
<tr>
<th></th>
<th>Ineligible Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
<td>Ineligible population</td>
</tr>
<tr>
<td>E2</td>
<td>Ineligible intervention</td>
</tr>
<tr>
<td>E3</td>
<td>Ineligible comparator</td>
</tr>
<tr>
<td>E4</td>
<td>Ineligible outcome</td>
</tr>
<tr>
<td>E5</td>
<td>Ineligible study design</td>
</tr>
<tr>
<td>E6</td>
<td>Ineligible publication type</td>
</tr>
<tr>
<td>E7</td>
<td>Ineligible sample size</td>
</tr>
<tr>
<td>E8</td>
<td>Systematic review or MA used only as source document for pearling</td>
</tr>
<tr>
<td>E9</td>
<td>Article or SR covered by a more recent systematic review</td>
</tr>
<tr>
<td>E10</td>
<td>Not English language article</td>
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<tr>
<td>E11</td>
<td>Ineligible country, low- or middle-income country (LMIC) setting (KQ 2, 3, and 4 only)</td>
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<tr>
<td>E12</td>
<td>Background article</td>
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</table>


<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
<th>Author(s)</th>
<th>Journal / Source</th>
<th>Year</th>
<th>Volume / Issue</th>
<th>Page Numbers</th>
<th>DOI / URL</th>
<th>PMCID</th>
<th>Exclusion Code(s)</th>
</tr>
</thead>
</table>


203. McFarlane I. “This poor woman, it's her first birth and this is her experience. And I'm a part of it!” Reconciling advocacy in the face of disrespectful maternity care. Women & Birth. 2017;30:1-. doi: 10.1016/j.wombi.2017.08.005. PMID: 125703101. Exclusion: E6.


Appendix F. Appendix References


