Adaptation of the Person-Centered Maternity Care scale for people of color in the United States

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Abstract

Introduction: Mistreatment by healthcare providers disproportionately affects people of color in the United States (US). The goal of this study is to adapt the global Person-Centered Maternity Care (PCMC) scale to the experiences of people of color in the US using a community-engaged approach.

Methods: We conducted expert reviews to improve content validity and cognitive interviews with potential respondents were conducted to assess relevance, comprehension, and comprehensiveness. Surveys of 297 postpartum people, 82% of whom identified as Black, were used for psychometric analysis in which we assessed construct and criterion validity and reliability. The University of California, San Francisco, California Preterm Birth Initiative's Community Advisory Board (CAB), which consists of community members, community-based health workers, and social service providers in Northern California, provided input during all stages of the project.

Results: Through an iterative process of factor analysis, discussions with the CAB, and a prioritization survey, we eliminated items that performed poorly in psychometric analysis, yielding a 35-item PCMC-US scale with sub-scales for "dignity and respect," "communication and autonomy," and "responsive and supportive care." The Cronbach's alpha for the full scale is 0.95 and for the sub-scales is 0.87. Standardized summative scores range from 0 to 100, with higher scores indicating higher PCMC. Correlations with related measures indicated high criterion validity.

Conclusions: The 35-item PCMC-US scale and its sub-scales have high validity and reliability in a

sample of predominantly Black women. This scale provides a tool to support efforts to reduce the disparities in birth outcomes among people of color.

INTRODUCTION

Disrespectful care and mistreatment by healthcare providers have been shown to disproportionately affect people of color in the United States (US), particularly Black pregnant and birthing people, and have been attributed to racism and discrimination (Alhusen et al., 2016; Altman et al., 2019; McLemore et al., 2018; Vedam, Stoll, Taiwo, et al., 2019). Hospitalizations for labor and delivery are often considered the apex for these experiences, not only because birth is a major life transition, but also due to exposure to unfamiliar providers and a culture of care that may or may not be aligned with patient expectations (Lyndon et al., 2018).

Person-centered care, or care that emphasizes the wants and needs of the patient over the provider, focuses on respect, trust, dignity, support, autonomy, and communication among other domains, and represents a major determinant of high-quality care provision (Institute of Medicine (US) Committee on Quality of Health Care in America, 2001; WHO, 2016). Various aspects of person-centered care during childbirth are affected by implicit bias and are often dependent on providers' assumptions regarding the ability of birthing people to make decisions about their care (Afulani, Ogolla, et al., 2021; Altman et al., 2019; Vedam, Stoll, McRae, et al., 2019).

While numerous qualitative studies have examined aspects of person-centered maternity care, very few have attempted to operationalize it quantitatively to enable measurement of the effectiveness of interventions aimed at improving quality of care, and, to our knowledge, none have looked at the unique experiences of Black pregnant and birthing people in the US (Nilvér et al., 2017). We sought to adapt and validate a scale to measure

person-centered care during labor and childbirth to reflect the experiences of people of color in the US, with an emphasis on the experiences of Black women and birthing people.

MATERIALS AND METHODS

The Person-Centered Maternity Care (PCMC) scale, which was initially developed for use in low-resource countries and has been validated in several contexts (Afulani et al., 2017, 2018; Afulani, Phillips, et al., 2019), served as the basis for this US-focused version. The original PCMC scale was first validated in Kenya and subsequently in India and Ghana (Afulani et al., 2018; Afulani, Phillips, et al., 2019; Afulani, Aborigo, et al., 2019). To adapt this scale for use in the US, we followed standard scale development procedures in addition to a community-engaged approach to ensure that it is valid, reliable, and fits the needs of Black birthing people and families (DeVellis, 2016; Hinkin et al., 1997). Specifically, a literature review was conducted to define the construct and identify domains and to develop the initial list of items (Afulani et al., 2017). We then adapted the scale using expert reviews, cognitive interviews, structured surveys, and psychometric analysis—engaging community members throughout the process—and named the adapted version the PCMC-US scale. We used a parallel process to develop a prenatal care-oriented measure, which we refer to as the Person-Centered Prenatal Care (PCPC) scale (Afulani, Altman, et al., 2021).

Expert reviews: The goal of the expert review was to optimize content validity in terms of relevance and comprehensiveness (DeVellis, 2016). Our research team, which included clinicians and researchers, first reviewed the 30 items in the original PCMC scale and removed items not applicable to the US setting (e.g., availability of water and electricity). We then held

an expert review session with 10 members of the University of California, San Francisco (UCSF), California Preterm Birth Initiative's (CA-PTBi) Community Advisory Board (CAB). The CAB includes people of color who have had preterm births, community-based health workers, and social service providers in Northern California. The CAB members represent community experts who understand what PCMC means to people of color because of their direct service and lived experiences in the communities of focus. A second expert review session consisted of 20 people, including two community health workers, four CAB members, and 14 faculty members (researchers and clinicians). During these sessions, the remaining questions were reviewed, and several new questions were recommended that related to existing PCMC domains (Examples: "Did you feel heard and listened to?" "Did providers encourage you to ask questions?" "Did providers knock on your room's door and wait for response before entering?"). Questions on infant feeding choices and emotional well-being were also added. CAB members were paid $40/hour for their participation in these sessions.

Cognitive interviews: We next conducted cognitive interviews to assess and improve comprehensibility, relevance, and comprehensiveness of the questions (Collins, 2003; Nápoles-Springer et al., 2006). We developed an interview guide that included questions on item wording, possible sources of confusion, and appropriateness of items, as well as whether questions were missing. We then conducted the cognitive interviews with 15 participants who were $\geq$28 weeks pregnant or had given birth within the past year. Participants were recruited from partner organizations and from a UCSF database of patients who had previously participated in studies and were interested in being contacted for future studies. Participants received a $50 gift card for participation. Feedback from the cognitive interviews were used to

revise the items. We had 50 candidate items for the PCMC-US scale (Table 1) at the end of the cognitive interviews. These questions were then integrated into the study questionnaire that included items on sociodemographic characteristics and other issues. The questionnaire was piloted with eight people meeting eligibility criteria for the planned survey to assure acceptability and ease of completion.

===Table 1 Full set of PCMC questions==

Survey: Participants for the survey were recruited through community-based organizations and targeted social media advertisements. Individuals aged 15 years or older who had given birth in the past year were eligible to participate, and recruitment materials indicated that the study was focused on the experiences of people of color. We conducted the survey between January and September 2020 using the REDCap (Research Electronic Database Capture) online survey platform for data collection (Harris et al., 2009). Individuals who were interested in joining the study emailed the study team, answered eligibility questions, and once confirmed as eligible, were emailed a personalized link to complete the survey. Study information was provided on the landing page and respondents clicked a button to indicate informed consent before the survey opened up. Participants received a $40 electronic gift card upon completing the survey. Ethical approval was obtained from UCSF's Institutional Review Board.

Psychometric analyses: The goal of the psychometric analyses was to assess and improve construct and criterion validity and internal reliability of the scale (DeVellis, 2016; Hinkin et al., 1997). We examined the distributions of all the items and recoded some response options to

obtain a uniform scale. To ensure that all response options ranged from 0 to 3, we recoded items that had a "not applicable" category (4) to the upper middle category (2: most of the time). We also reverse-coded negative items so that all responses reflected a scale ranging from 0 as the lowest level to 3 as the highest level. We then constructed a correlation matrix to examine the correlations among the items.

Construct validity was assessed using exploratory factor analysis (DeVellis, 2016; Hinkin et al., 1997). The Kaiser-Meyer-Olkin (KMO) measure was used to test suitability of the items for factor analysis. The decision on how many factors to retain was made using Kaiser's rule of retaining only factors with eigenvalues ≥ 1, and examining the "elbow" of the scree plot (plot of eigenvalues) (Afifi et al., 2004; DeVellis, 2016; Hinkin et al., 1997). Oblique rotation, which allows for correlation between the rotated factors, was used because the person-centered care domains are theoretically related (Afifi et al., 2004; Hinkin et al., 1997). We used initial criteria of factor loadings ≥ 0.3 and uniqueness of ≤ 0.8 in iterative factor analysis, combined with feedback from the CAB to determine which items to retain or exclude (Afifi et al., 2004). Sub-scales were generated using the loading of the items on the extracted factors and conceptual groupings, and the items were summed to generate the PCMC-US scale and sub-scale scores.

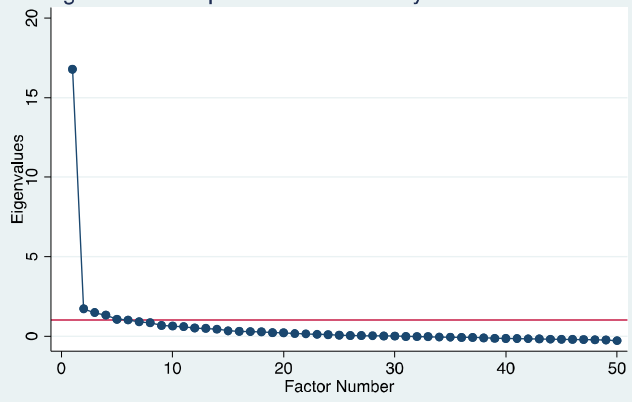
Internal consistency reliability was assessed using Cronbach's alpha (DeVellis, 2016; Hinkin et al., 1997). To assess criterion validity, we examined whether scales and sub-scales were associated with theoretically related measures (DeVellis, 2016). For example, we hypothesized that the PCMC-US scale would be associated with satisfaction and perceptions of the quality of intrapartum care received, and whether the participant would use the same service in the future (Afulani et al., 2017; Sheferaw et al., 2016). We also examined the

111 association between the PCMC-US scale and two other measures which assess women's
112 combined experiences during pregnancy and childbirth: the Mothers Autonomy in Decision
113 Making scale (MADM) and the Mothers on Respect Index (MORi) index (Vedam, Stoll, Martin, et
114 al., 2017; Vedam, Stoll, Rubashkin, et al., 2017). We tested our hypotheses through correlations
115 and bivariate linear and logistic regression analysis. STATA version 15 was used for all analyses.
116
117 **RESULTS**
118 In all, 312 participants completed the study. Fifteen participants who did not respond to all the
119 PCMC-US items were excluded, resulting in an analytic sample of 297. Most respondents
120 identified as Black (82%). The average age was 29 years old (SD=3.6), and most participants
121 were married (89%), primiparous (76%), and college graduates (52%; Table 2).
122
123 ====Table 2: Sociodemographic and clinical characteristics====
124
125 The distributions of the 50 individual PCMC-US items are in Appendix A. With few
126 exceptions, the responses ranged between 0 and 3. The proportion of N/A responses on items
127 that generated N/A responses ranged from 1 to 13% except for the question regarding whether
128 providers explained medications, for which 54% responded that they did not receive any
129 medicine. There was good correlation between most items, which generally ranged from 0.2 to
130 0.7. Items that had correlations of <2 or negative correlations with other items were flagged.
131 These included the question on preferred name, preferred language, position of choice, being
132 separated from the baby, support for feeding goals, cleanliness, coercion, holding back from

133 asking questions, and crowding.

134 The KMO measures of sampling adequacy for all items ranged from 0.69 to 0.97, with an
135 overall KMO of 0.94, indicating suitability for factor analysis. The initial factor analysis with all
136 50 items yielded 6 factors with eigenvalues of ≥1, accounting for 84% of the cumulative
137 variance. However, there was one dominant factor (Figure 1) with an eigenvalue of 16.8, which
138 accounted for 60% of cumulative variance. The eigenvalues for the other factors were <2
139 (range: 1.0 to 1.6). All the items had a factor loading of ≥0.3 on at least one of the 6 factors
140 except the questions on introduction, language, informed about what was happening, and
141 support for feeding goals, which had loadings of between 0.2 and 0.3. Uniqueness for all items
142 was <0.8 except for introduction, separation, language, holding back from asking questions, and
143 crowding, which had uniqueness between 0.8 and 0.9. When the analysis was restricted to the
144 single factor structure, all items had loadings of >0.3 except the items on name, separation,
145 explained medications, coercion, holding back from asking questions, and crowding, which had
146 loadings of <0.2 and uniqueness >0.9. We conducted iterative factor analysis dropping different
147 items and examining the results. Given the need for a parsimonious scale, we also identified
148 items that were conceptually similar for possible elimination.

Figure 1: Scree plot from factor analyis of 50 PCMC items



Eigenvalues and factors from factor analysis of 50 PCMC items

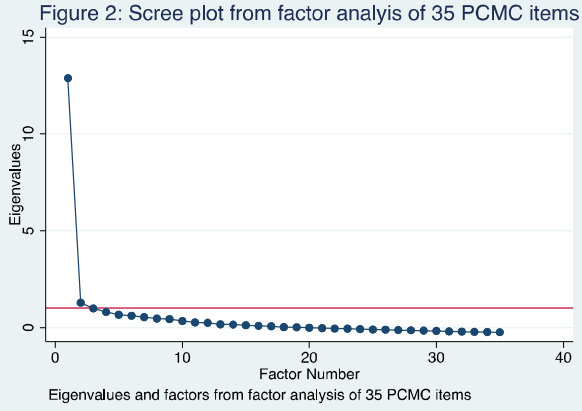
149

We presented the initial findings to the CAB and suggested dropping the items that had low loadings, high uniqueness, or conceptual difference/similarity. Although some CAB members acknowledged 50 items were too many for a scale, many strongly felt that all questions were important and should be included, so we could not achieve consensus on items to drop. Thus, to enable us to get to a smaller subset of questions, we used the results of the factor analysis, as well as conceptual domains based on the World Health Organization experience of care domains (Tunçalp et al., 2015), to group the 50 items into three domains for "Dignity and Respect" (DR: 11 items), "Communication and Autonomy" (CA: 19 items), and "Responsive and Supportive Care" (RS: 20 items) We then created a survey, grouping conceptually similar items together, and asked CAB members as well as research team members to select their top 8 to 10 questions from each domain.

The results of this survey (completed by 14 people and shown in Appendix B) were combined with the factor analysis to select items for the scale. We first decided to drop all items selected by less than a third of respondents (<5), as this suggested low priority, resulting in the elimination of 13 items (4 from CA, 1 from DR, and 8 from RS). We then re-ran the factor analysis on the remaining 37 items. All but three items had loadings >0.3 on the single factor for each domain and on the full scale (coercion, called by preferred name, and being separated from baby). Since the items on preferred name and being separated from baby were not highly ranked in the survey (selected by only 5 people), we decided to drop these two items next, but retained the coercion item despite its low loading because it was recommended by most respondents (9) and was one of the items CAB members felt strongly about retaining. Of note, despite reporting a generally good experience, about 30% of participants in this sample

reported being pressured into a decision by their providers, pointing to the importance of this item. This yielded a 35-item scale with 3 factors (Figure 2). All items had loadings >0.3 on the full scale and on the single factor for each domain, except the item on coercion (Table 3). Dropping the coercion item yielded a 34-item version in which all had loadings >0.3 on the full scale and on the single factor for each domain. Inclusion of the coercion item, however, did not significantly change the loadings of the other items or the Cronbach's alpha (which was 0.95 in both cases). So the 35-item version was maintained with 14, 10, and 11 items respectively for the CA, DR, and RS sub-scales. The Cronbach's alpha for all the sub-scales is 0.87 (Table 4).

Figure 2: Scree plot from factor analyis of 35 PCMC items



Eigenvalues and factors from factor analysis of 35 PCMC items

====Table 3 Factor analysis results====

To create summative scores for the full scale and sub-scales, the responses on the items for each are added. These scores are then standardized by dividing the mean score by the maximum possible scores ((e.g., 105 (35*3) for full scale, 42(14*3) for CA, 30(10*3) for DR, and 33(11*3) for RS)) and multiplying by 100. The standardized scores thus range from 0 to 100 for all the scores, where 0 is the worst PCMC and 100 is the best PCMC one can receive. The raw and standardized scores are shown in Table 4. The results show an average standardized PCMC score of 89. The highest sub-scale score is for Dignity and Respect (92) and the lowest score is

for Communication and Autonomy (87).

===Table 4: Scale Properties===

The associations between the full PCMC-US scale and sub-scales and the related measures provided support for criterion validity. The regression of each of the sub-scales and the full scale on participants' ratings of satisfaction with services, general quality ratings, and whether they would give birth in the same facility if they were to become pregnant again shows increasing PCMC is associated with higher odds of satisfaction and quality of care and intent to give birth in the same facility in the future (Table 5). The correlation coefficients between the PCMC-US scale and sub-scale scores and the MORi and MADM scale scores are all >0.5, with a correlation coefficient of 0.69 for CA and MADM and 0.63 for DR and MORi.

===Table 5: Criterion validity results ===

DISCUSSION

We used a rigorous, community-engaged approach to adapt the Person-Centered Maternity Care scale to reflect the experiences of people of color in the US. Through expert reviews and cognitive interviews, we developed 50-items that capture person-centered maternity care for women of color. We then used psychometric analysis and feedback from the CAB to reduce the items to a 35-item PCMC-US scale, which has three sub-scales measuring dignity and respect, communication and autonomy, and responsive and supportive care. The full scale and the sub-scales have good content, construct, and criterion validity with Cronbach's alphas of 0.95 for the main scale and >0.8 for the sub-scales.

The final version of the PCMC-US scale ended up being similar to the original version (Afulani et al., 2017, 2018), with some subtle differences. Both versions have similar sub-scales, given the similar set of items and conceptual groupings using the WHO experience of care domains (Tunçalp et al., 2015). Although the wording of the questions resemble the original questions, the adaption process ensured that the exact wording of items in the new version are appropriate for the US context. The response options used in the original PCMC scale were maintained, as participants in the cognitive interviews found the frequency response format to be easy to respond to and did not think it should be changed. This response format leads to more variability in responses than binary yes/no responses. Acquiescence bias is also less of an issue than the agree/disagree format used in other scales (Holbrook, 2008).

The original PCMC scale has 30 items, compared to 35 items in the PCMC-US scale. This is due to several questions that were added during the adaptation process, leading to a set of 50 potential items, all of which were felt to be highly relevant by the cognitive interview participants and the CAB. The 35 items included in the PCMC-US scale are the result of our attempt to produce a parsimonious but comprehensive scale that incorporates feedback from the CAB and has high validity and reliability. Thus, although we excluded 15 items from the scale, these items could be included in surveys that are able to include a longer list of questions. In addition, we included the question on coercion despite its poor performance in factor analysis because of its importance to the experiences of women of color. The performance of this item should be reassessed in future studies.

The PCMC-US scale is different from other scales for measuring birthing people's experience. First, to our knowledge it is the first available, validated person-centered care scale

that centers the childbirth experiences of Black birthing people. Continuous engagement with members of the priority community ensured that the items in the scale capture their unique experiences (Altman et al., 2019, 2020; McLemore et al., 2018). The scale items were intentionally developed to include a mix of subjective questions to capture people's subjective perceptions as well as more objective and actionable items that can inform quality improvement (Afulani, Aborigo, et al., 2019; Montagu et al., 2020). The PCMC-US scale is also among the few tools that measure experiences of person-centered care during childbirth in a comprehensive manner (Nilvér et al., 2017).

Strengths and Limitations

A key strength of this study is the use of a community-based participatory approach embedded in standard instrument development methods. This helped ensure that the PCMC-US scale is relevant to people of color—particularly the Black community. Starting with a validated tool also provided a rigorous, theory-based foundation for the adaptation. A potential limitation is generalizability, given the relatively highly educated validation sample. This, however, is also a strength of the study, as it represents the views of a diverse group of Black people. Another limitation is the low representation of non-Black persons of color, which is likely because the survey was only administered in English. Plans for validation in a Spanish-speaking population are in place. The similarities between the original PCMC scale and the US version suggests that the scale may be applicable across different populations. Validations in new populations are however needed. Respondent burden due to the length of the scale may be a limitation. However, given the multidimensional nature of person-centered maternity care, the assessment of the relevance of the items included, and their psychometric performance, this is

the most parsimonious version of the scale we are able to recommend at this time. The sub-scales can be used individually where necessary, but we recommend measuring all three domains to assess PCMC in a holistic manner: It takes about 10 minutes to answer all the questions. Shorter versions will be developed in future studies when data from more diverse samples are available, as was done for the low resource setting version (Afulani, Feeser, et al., 2019).

Implications for Practice and/or Policy

Given the increasing documentation of the poor experience of people of color in health care settings, it is important that these experiences are documented in a systematic manner. In addition, there is the need to develop and evaluate interventions to improve the experiences of people of color in health care settings including during childbirth. These efforts require measures that center the experiences of the affected communities (K. Scott, 2019). The PCMC-US scale, together with ongoing efforts to measure obstetric racism (K. A. Scott & Davis, 2021), provide tools for these purposes.

Conclusions

Using a community-engaged process, we adapted the PCMC scale that was initially developed in Kenya and India to make it relevant to the experiences of people of color in the US. The PCMC-US scale has high validity and reliability in a sample of predominantly black women. The scale will help drive as well as serve as an accountability tool in efforts to reduce disparities in pregnancy and birth outcomes.

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Table 1: Person-Centered Maternity Care (PCMC) questions

No.	*Question in original PCMC scale*	*Final question in PCMC-US scale* [1]	*Label*
1.	How did you feel about the amount of time you waited? Would you say it was very short, somewhat short, somewhat long, or very long?	How did you feel about the amount of time you had to wait before being examined by a health care provider (doctor or midwife)?	Wait time
2.	[2]	How did you feel about the amount of time you had to wait in triage before being seen and assessed?	Triage time
3.	During your time in the health facility did the doctors, nurses, or other health care providers introduce themselves to you when they first came to see you?	Did each new provider introduce themselves to you when they first came to see you?	Introduction
4.	Did the doctors, nurses, or other health care providers call you by your name?	Did your providers call you by your preferred name?	Preferred name
5.	Did the doctors, nurses, or other staff at the facility treat you with respect?	Did your providers treat you with respect?	Treated with respect
6.		Did you feel your experience and knowledge were valued?	Experience valued
7.		Did you feel your customs and culture were respected by your providers?	Customs respected
8.		Did you feel heard and listened to by your providers?	Felt heard
9.		Did providers knock on your room's door and wait for response before entering?	Privacy-knock on door
10.	During examinations in the labor room, were you covered up with a cloth or blanket or screened with a curtain so that you did not feel exposed?	During exams, were you covered up with a cloth or blanket or screened with a curtain so that you did not feel exposed?	Privacy-covered
11.	Do you feel like your health information was or will be kept confidential at this facility?	Did you feel your health information was kept confidential and private by providers and staff?	Information confidential
12.	Did you feel like the doctors, nurses or other staff at the facility involved you in decisions about your care?	Did your providers involve you in decisions about your care?	Involved in decisions
13.		Did you feel coerced or pressured into a decision by providers?	Coercion
14.	Did the doctors and nurses explain to you why they were doing examinations or procedures on you?	Did your providers explain to you why they were doing examinations or procedures on you?	Explain procedures
15.		Did your providers explain to you why they were doing examinations or procedures on your baby?	Explain baby procedures
16.	Did the doctors and nurses explain to you why they were giving you any medicine?	Did your providers explain to you why they were giving you any medicine?	Explain medication

17.	Did the doctors, nurses or other staff at the facility ask your permission/consent before doing procedures and examinations on you?	Did providers or other staff ask your permission/consent before touching or doing procedures or examinations on you?	Consent
18.		Did you feel your birth plan or preferences were respected? (i.e. moving during labor, pain management, music, birthing position)	Birth preferences respected
19.	During the delivery, do you feel like you were able to be in the position of your choice?	Were you able to give birth in the position of your choice?	Birth position of choice
20.	Were you allowed to eat or drink when you were hungry/thirsty?	Were you able to eat and drink if desired?	Eat
21.	Did the doctors, nurses or other staff at the facility speak to you in a language you could understand?	Did your providers speak to you using language or words you could understand?	Language understood
22.		Did you feel informed about what was happening to you during your childbirth?	Felt informed
23.	Did the doctors and nurses at the facility talk to you about how you were feeling?	Did your providers ask about your emotional well-being?	Emotional well-being
24.		Did your providers provide you with resources to help with your emotional well-being if you needed it?	Resources for emotional wellbeing
25.	Did you feel you could ask the doctors, nurses or other staff at the facility any questions you had?	Did you feel you could ask your providers any questions you had?	Could ask questions
26.		Did you hold back on asking questions for any reason?	Hold back on asking questions
27.		Did providers encourage you to ask questions?	Encourage you to ask questions
28.		Did providers check that you understood information that was given to you?	Checked understanding
29.		Do you feel your questions were answered when you did ask?	Questions were answered
30.	Did the doctors, nurses, and other staff at the facility show they cared for you?	Did providers give you information in a way that showed they cared about you?	Information showed they cared
31.		Did providers respect your family or companions who were with you?	Family respected
32.	Were you allowed to have someone you wanted to stay with you during delivery?	Were you allowed to have everyone you wanted (e.g. doula, elder, friends, or family) stay with you during your childbirth?	Companionship
33.	When you needed help, did you feel the doctors, nurses or other staff at the facility paid attention?	Did you feel your providers responded in a timely manner when you requested assistance?	Timely response
34	Did the doctors and nurses ask how much pain you were in?	Did you feel your providers believed you when you said you were in pain?	Believed about pain

35.	Do you feel the doctors or nurses did everything they could to help control your pain?	Do you feel your providers did everything they could to help you manage your pain?	Pain management
36.		Did you feel your providers avoided, ignored, or otherwise neglected you?	Neglected
37.	Did you feel the doctors, nurses, or other health providers shouted at you, scolded, insulted, threatened, or talked to you rudely?	Did you feel your providers shouted at you, scolded, insulted, threatened, or talked to you rudely?	Verbal abuse
38.	Did you feel like you were treated roughly like pushed, beaten, slapped, pinched, physically restrained, or gagged?	Did you feel like your providers handled you roughly, held you down, or physically restrained you?	Physical abuse
39.	Did you feel the doctors, nurses or other staff at the facility took the best care of you?	Did you feel your providers took the best care of you?	Took best care
40.	Did you feel you could completely trust the doctors, nurses or other staff at the facility with regards to your care?	Did you feel you could completely trust your providers with regards to your care?	Trust
41.	During your time in the health facility, would you say you were treated differently because of any personal attribute... like your age, marital status, number of children, your education, wealth, your connections with the facility, or something like that? [3]	Would you say you were discriminated against because of your race, ethnicity, culture, sex, gender, sexual orientation, language, immigration status, religion, income, education, age, marital status, number of children, insurance status, or other attribute?	Discrimination
42.		Were you separated from your baby at any time after the birth?	Separated from baby
43.		Was your feeding choice for your baby (breastfeeding, bottle feeding, both) respected by providers?	Baby feeding choice respected
44.		Did you receive the support you needed to reach your baby's feeding goals? (i.e. lactation support)	Support for baby feeding
45.		Were you supported in creating a birth environment that made you feel comfortable?	Comfortable birth environment
46.		Do you think the place you gave birth met your needs?	Needs met
47.	Thinking about the wards, washrooms and the general environment of the health facility, will you say the facility was very clean, clean, dirty, or very dirty?	Thinking about the place where you gave birth, did you feel that the rooms and facilities were clean?	Clean rooms
48.	Thinking about the labor and postnatal wards, Did you feel the health facility was crowded?	Did you feel the place you gave birth was crowded during your birth stay? (i.e. not enough beds, moved from room to room, being in triage a long time)	Crowded
49.	In general, did you feel safe in the health facility?	In general, did you feel physically safe in or around your place of birth?	Felt safe
50.		Did you feel you had access to your preferred place of birth?	Preferred clinic

Notes:
[1] All questions have responses options 0. No, never; 1. Yes, a few times; 2. Yes, most of the time; 3. Yes, all the time. Except the following:
Wait time and triage time options: 0. It was just right; 1 .It was somewhat long; 2. It was very long; 3. It was extremely long
Introduction options: 0. No, none of them; 1. Yes, a few of them; 2. Yes, most of them; 3. Yes, all of them
Neglect, verbal, and physical abuse options: 0. No, never; 1. Yes, once; 2. Yes, a few times; 3. Yes, many times
[2] Blank implies not part of original scale and added as part of adaptation process.
[3] Fell out after factor analysis of original scale.
[4] Questions in original PCMC scale excluded from PCMC-US scale include:
Was there water in the facility?
Was there electricity in the facility?
Did the doctors, nurses, and other staff at the facility treat you in a friendly manner?
Did the doctors, nurses or other staff at the facility support your anxieties and fears?
Do you think there was enough health staff in the facility to care for you?
"Were you allowed to have someone you wanted to stay with you during labor?" and "[w]ere you allowed to have someone you wanted to stay with you during the delivery?" were combined into one question

Table 2: Characteristics of respondents (N=297)

	No.	%
Race/ethnicity		
Black/African American	242	81.5
White/Caucasian	33	11.1
Asian	5	1.7
Hawaiian/Pacific Islander	3	1.0
Latina/Hispanic	18	6.1
American Indian/Alaskan Native	3	1.0
Multiracial	2	0.7
Other	5	1.7
Prefer not to answer	3	1.0
Partner's race/ethnicity		
Black/African American	240	80.8
White/Caucasian	35	11.8
Asian	4	1.3
Hawaiian/Pacific Islander	1	0.3
Latinx/Hispanic	18	6.1
American Indian/Alaskan Native	2	0.7
Multiracial	1	0.3
Other	3	1.0
Prefer not to answer	2	0.7
No partner	2	0.7
Age		
17-28	102	34.3
29-32	125	42.1
33-45	70	23.6
Married	263	88.6
Primiparous	225	75.8
Time since delivery		
<3 months	103	34.7
3-4 months	106	35.7
5-12 months	88	29.6
Educational attainment		
High school or less	38	12.8
Some college	106	35.7
College graduate	153	51.5
Average yearly income		
<$50,000	62	20.9
$50,0001-$100,000	185	62.3
>$100,000	50	16.8
Employment status		
Not employed	104	35.0
Employed full-time	152	51.2
Employed part-time	37	12.5
Prefer not to answer	4	1.3
Insurance type		
No insurance	7	2.4
Private/employer-provided insurance	243	81.8
Medicaid/MediCal	16	5.4
Medicare	22	7.4
Tricare/government	2	0.7
Prefer not to answer	7	2.4

Table 3: Results of exploratory factor analysis for 35-item Person-Centered Maternity Care – US scale (N=297)

	Single factor		Three factor structure				Loading on individual sub-scales			
	F1	Uniqueness	F1	F2	F3	Uniqueness	CA	DR	RS	Uniqueness
1. Introduction	0.36	0.87		0.23		0.86	0.36			0.87
2. Felt heard	0.72	0.49	0.33	0.47		0.47	0.75			0.44
3. Involved in decisions	0.77	0.41	0.45	0.42		0.39	0.79			0.37
4. Explain procedures	0.68	0.54		0.59		0.47	0.72			0.49
5. Consent	0.59	0.66		0.69		0.55	0.62			0.62
6. Language understood	0.40	0.84	0.28			0.82	0.48			0.77
7. Felt informed	0.55	0.70		0.44		0.68	0.60			0.64
8. Could ask questions	0.63	0.61		0.42		0.57	0.64			0.59
9. Checked understanding	0.71	0.49	0.57			0.44	0.72			0.48
10. Birth position of choice	0.53	0.72	0.44			0.67	0.48			0.77
11. Explain baby procedures	0.63	0.60	0.30	0.41		0.58	0.70			0.51
12. Birth preferences respected	0.52	0.73	0.36			0.72	0.54			0.71
13. Baby feeding choice respected	0.58	0.66		0.32		0.66	0.56			0.69
14. Coercion	0.13	0.98			0.47	0.78	0.10			0.99
15. Treated with respect	0.76	0.42		0.63		0.38		0.75		0.44
16. Family respected	0.79	0.38	0.70			0.33		0.80		0.36
17. Information confidential	0.50	0.75		0.81		0.54		0.43		0.81
18. Privacy-covered	0.46	0.79		0.41		0.71		0.44		0.80
19. Verbal abuse	0.52	0.73	0.55		0.32	0.60		0.54		0.71
20. Physical abuse	0.54	0.71	0.56			0.66		0.56		0.69
21. Discrimination	0.74	0.45	0.74			0.37		0.81		0.34
22. Neglected	0.61	0.63	0.59		0.35	0.49		0.62		0.61
23. Experience valued	0.78	0.39	0.40	0.47		0.37		0.73		0.47
24. Customs respected	0.60	0.64	0.71			0.53		0.63		0.60
25. Emotional well-being	0.56	0.69	0.52			0.61			0.52	0.73
26. Pain management	0.45	0.80		0.32		0.77			0.47	0.78
27. Took best care	0.73	0.46		0.58	0.37	0.35			0.79	0.38
28. Trust	0.73	0.46		0.75		0.33			0.78	0.40
29. Felt safe	0.58	0.66		0.54	0.34	0.55			0.59	0.65
30. Companionship	0.51	0.74	0.68			0.63			0.52	0.73
31. Timely response	0.62	0.62	0.54			0.58			0.65	0.58
32. Believed about pain	0.63	0.60	0.49			0.58			0.66	0.56
33. Support for baby feeding	0.52	0.73		0.46		0.70			0.49	0.76
34. Comfortable birth environment	0.75	0.43	0.72			0.38			0.73	0.47
35. Wait time	0.50	0.75	0.35			0.73			0.50	0.75

Notes: F=Factor; CA=Communication & autonomy; DR=Dignity & respect; RS=Responsive & supportive

Table 4: Scale and sub-scale properties and distribution of scores (N=297)

			Raw scores				Standardized score			
	No. of items	Cronbach's alpha	Mean	SD	Min	Max	Mean	SD	Min	Max
Full PCMC-US scale	35	0.95	93.6	12.9	22.0	105.0	89.2	12.3	21.0	100.0
Communication & autonomy	14	0.87	37.1	5.2	11.0	42.0	88.4	12.3	26.2	100.0
Dignity & respect	10	0.87	27.7	3.6	7.0	30.0	92.4	12.1	23.3	100.0
Responsive & supportive care	11	0.87	28.8	4.8	4.0	33.0	87.2	14.6	12.1	100.0

Table 5: Bivariate logistic and linear regression of scale scores on related measures to assess criterion validity (N=297)

	Satisfied with care			***Will birth in same place again***			***Rated quality of care as very good***			***MADM score***			***MORi score***		
	OR	*95% CI*		*OR*	*95% CI*		*OR*	*95% CI*		*β*	*95% CI*		*β*	*95% CI*	
Full PCMC-US scale	1.14***	[1.09	1.18]	1.09***	[1.06	1.11]	1.11***	[1.07	1.14]	0.35***	[0.32	0.39]	0.20***	[0.17	0.22]
Communication & autonomy	1.13***	[1.09	1.17]	1.08***	[1.05	1.11]	1.10***	[1.07	1.13]	0.34***	[0.30	0.38]	0.18***	[0.15	0.21]
Dignity & respect	1.10***	[1.07	1.14]	1.07***	[1.04	1.09]	1.10***	[1.06	1.13]	0.33***	[0.28	0.37]	0.20***	[0.17	0.23]
Responsive & supportive care	1.13***	[1.09	1.17]	1.08***	[1.05	1.10]	1.09***	[1.06	1.12]	0.28***	[0.25	0.32]	0.16***	[0.13	0.18]

Notes: * p<0.05 ** p<0.01 *** p<0.001. Each row is a different bivariate model. MADM=Mothers Autonomy in Decision Making scale MORi= Mothers on Respect index. N=296 for MADM model;

Appendix A: Distribution of Individual PCMC-US Items (N=297)

	No.	%
How did you feel about the amount of time you had to wait before being examined by a health care provider (doctor or midwife)?		
0. It was just right	178	59.9
1. It was somewhat long	104	35
2. It was very long	11	3.7
3. It was extremely long	4	1.3
Total	297	100
How did you feel about the amount of time you had to wait in triage before being seen and assessed?		
0. It was just right	205	69
1. It was somewhat long	68	22.9
2. It was very long	9	3
3. It was extremely long	7	2.4
4. Not applicable (there was no triage)	8	2.7
Total	297	100
Did each new provider introduce themselves to you when they first came to see you? (If you were seen by only one provider and they introduced themselves, you can select yes, all of them.)		
0. No, none of them	3	1
1. Yes, a few of them	29	9.8
2. Yes, most of them	77	25.9
3. Yes, all of them	188	63.3
Total	297	100
Did your providers call you by your preferred name?		
0. No, never	44	14.9
1. Yes, a few times	46	15.5
2. Yes, most of the time	78	26.4
3. Yes, all the time	128	43.2
Total	296	100
Did your providers treat you with respect?		
0. No, never	2	0.7
1. Yes, a few times	13	4.4
2. Yes, most of the time	62	20.9
3. Yes, all the time	220	74.1
Total	297	100
Did you feel your experience and knowledge were valued?		
0. No, never	5	1.7
1. Yes, a few times	17	5.7
2. Yes, most of the time	57	19.2
3. Yes, all the time	218	73.4
Total	297	100
Did you feel your customs and culture were respected by your providers?		
0. No, never	6	2
1. Yes, a few times	7	2.4
2. Yes, most of the time	14	4.7
3. Yes, all the time	200	67.3
4. I have no particular customs	70	23.6
Total	297	100
Did you feel heard and listened to by your providers?		
0. No, never	2	0.7
1. Yes, a few times	25	8.4
2. Yes, most of the time	81	27.3
3. Yes, all the time	189	63.6

Total	297	100
Did providers knock on your rooms door and wait for response before entering?		
0. No, never	6	2
1. Yes, a few times	15	5.1
2. Yes, most of the time	35	11.8
3. Yes, all the time	237	79.8
4. Not applicable	4	1.3
Total	297	100
During exams, were you covered up with a cloth or blanket or screened with a curtain so that you did not feel exposed?		
0 No, never	6	2
1 Yes, a few times	9	3
2 Yes, most of the time	34	11.4
3 Yes, all the time	241	81.1
4 Not applicable	7	2.4
Total	297	100
Did you feel your health information was kept confidential and private by providers and staff?		
1. Yes, a few times	5	1.7
2. Yes, most of the time	67	22.6
3. Yes, all the time	225	75.8
Total	297	100
Did your providers involve you in decisions about your care?		
0. No, never	1	0.3
1. Yes, a few times	16	5.4
2. Yes, most of the time	46	15.5
3. Yes, all the time	234	78.8
Total	297	100
Did your providers explain to you why they were doing examinations or procedures on you?		
0. No, never	1	0.3
1. Yes, a few times	10	3.4
2. Yes, most of the time	66	22.2
3. Yes, all the time	220	74.1
Total	297	100
Did your providers explain to you why they were doing examinations or procedures on your baby?		
0. No, never	1	0.3
1. Yes, a few times	8	2.7
2. Yes, most of the time	33	11.1
3. Yes, all the time	242	81.5
4. Not applicable / I was not present to be informed	13	4.4
Total	297	100
Did your providers explain to you why they were giving you any medicine?		
0. No, never	10	3.4
1. Yes, a few times	12	4
2. Yes, most of the time	29	9.8
3. Yes, all the time	74	24.9
4. Not applicable / I did not get any medicine	172	57.9
Total	297	100
Did providers or other staff ask your permission/consent before touching or doing procedures on you?		
0. No, never	1	0.3
1. Yes, a few times	10	3.4
2. Yes, most of the time	84	28.3

3. Yes, all the time	202	68
Total	297	100
Did you feel coerced or pressured into a decision by providers?		
0. No, never	207	69.7
1. Yes, a few times	50	16.8
2. Yes, most of the time	9	3
3. Yes, all the time	31	10.4
Total	297	100
Did you feel your birth plan or preferences were respected? (i.e. moving during labor, pain management, music, birthing position)?		
0. No, never	15	5.1
1. Yes, a few times	13	4.4
2. Yes, most of the time	32	10.8
3. Yes, all the time	194	65.3
4. Not applicable	43	14.5
Total	297	100
Were you able to give birth in the position of your choice?		
0. No	15	5.1
1. Yes	262	88.2
2. Not applicable, I had a cesarean	20	6.7
Total	297	100
Were you able to eat and drink if desired?		
0. No, never	6	2
1. Yes, a few times	28	9.4
2. Yes, most of the time	31	10.4
3. Yes, all the time	207	69.7
4. It was not appropriate to eat (e.g. because of surgery)	25	8.4
Total	297	100
Did your providers speak to you using language or words you could understand?		
0. No, never	3	1
1. Yes, a few times	9	3
2. Yes, most of the time	10	3.4
3. Yes, all the time	275	92.6
Total	297	100
Did they provide an interpreter?		
0. No, never	8	36.4
1. Yes, a few times	2	9.1
2. Yes, most of the time	2	9.1
3. Yes, all the time	3	13.6
4. Not applicable	7	31.8
Total	22	100
Did you feel informed about what was happening to you during your childbirth?		
0. No, never	1	0.3
1. Yes, a few times	9	3
2. Yes, most of the time	79	26.6
3. Yes, all the time	208	70
Total	297	100
Did your providers ask about your emotional well-being?		
0. No, never	23	7.7
1. Yes, a few times	22	7.4
2. Yes, most of the time	50	16.8
3. Yes, all the time	202	68
Total	297	100
Did your providers provide you with resources to help with your emotional well-being if you needed it?		

0. No, never	13	4.4
1. Yes, a few times	14	4.7
2. Yes, most of the time	24	8.1
3. Yes, all the time	224	75.4
4. Not applicable	22	7.4
Total	297	100
Did you feel you could ask your providers any questions you had?		
0. No, never	4	1.3
1. Yes, a few times	27	9.1
2. Yes, most of the time	83	27.9
3. Yes, all the time	183	61.6
Total	297	100
Did providers encourage you to ask questions?		
0. No, never	10	3.4
1. Yes, a few times	15	5.1
2. Yes, most of the time	63	21.3
3. Yes, all the time	208	70.3
Total	296	100
Did providers check that you understood information that was given to you?		
0. No, never	5	1.7
1. Yes, a few times	10	3.4
2. Yes, most of the time	79	26.6
3. Yes, all the time	203	68.4
Total	297	100
Did you hold back on asking questions for any reason?		
0. No, never	191	64.3
1. Yes, a few times	71	23.9
2. Yes, most of the time	14	4.7
3. Yes, all the time	21	7.1
Total	297	100
Do you feel your questions were answered when you did ask?		
0. No, never	1	0.3
1. Yes, a few times	18	6.1
2. Yes, most of the time	35	11.8
3. Yes, all the time	241	81.1
4. Not applicable / I did not have any questions	2	0.7
Total	297	100
Did providers give you information in a way that showed they cared about you?		
0. No, never	4	1.4
1. Yes, a few times	18	6.1
2. Yes, most of the time	74	25
3. Yes, all the time	200	67.6
Total	296	100
Did providers respect your family or companions who were with you?		
0. No, never	1	0.3
1. Yes, a few times	9	3
2. Yes, most of the time	24	8.1
3. Yes, all the time	259	87.2
4. Not applicable	4	1.3
Total	297	100
Were you allowed to have everyone you wanted (e.g. doula, elder, friends, or family) stay with you during your childbirth?		
0. No, never	8	2.7
1. Yes, a few times	7	2.4
2. Yes, most of the time	36	12.1

3. Yes, all the time	244	82.2
4. I did not want someone to stay with me	2	0.7
Total	297	100
Did you feel your providers responded in a timely manner when you requested assistance?		
0. No, never	2	0.7
1. Yes, a few times	14	4.7
2. Yes, most of the time	48	16.2
3. Yes, all the time	224	75.4
4. I did not request assistance	9	3
Total	297	100
Did you feel your providers believed you when you said you were in pain?		
0. No, never	7	2.4
1. Yes, a few times	8	2.7
2. Yes, most of the time	52	17.5
3. Yes, all the time	220	74.1
4. Not applicable	10	3.4
Total	297	100
Do you feel your providers did everything they could to help you manage your pain?		
0. No, never	16	5.4
1. Yes, a few times	21	7.1
2. Yes, most of the time	106	35.7
3. Yes, all the time	154	51.9
Total	297	100
Did you feel your providers avoided, ignored, or otherwise neglected you?		
0. No, never	254	85.5
1. Yes, once	21	7.1
2. Yes, a few times	20	6.7
3. Yes, many times	2	0.7
Total	297	100
Did you feel your providers shouted at you, scolded, insulted, threatened, or talked to you rudely?		
0. No, never	280	94.3
1. Yes, once	8	2.7
2. Yes, a few times	7	2.4
3. Yes, many times	2	0.7
Total	297	100
Did you feel like your providers handled you roughly, held you down, or physically restrained you?		
0. No, never	273	91.9
1. Yes, once	11	3.7
2. Yes, a few times	9	3
3. Yes, many times	4	1.3
Total	297	100
Did you feel your providers took the best care of you?		
0. No, never	12	4
1. Yes, a few times	13	4.4
2. Yes, most of the time	70	23.6
3. Yes, all the time	202	68
Total	297	100
Did you feel you could completely trust your providers with regards to your care?		
0. No, never	8	2.7
1. Yes, a few times	16	5.4
2. Yes, most of the time	76	25.6

3. Yes, all the time	197	66.3
Total	297	100
Would you say you were discriminated against because of your race, ethnicity, culture, sex, gender, sexual orientation, language, immigration status, religion, income, education, age, marital status, number of children, insurance status, or other attribute?		
0. No, never	280	94.3
1. Yes, a few times	10	3.4
2. Yes, most of the time	6	2
3. Yes, all the time	1	0.3
Total	297	100
Were you separated from your baby at any time after the birth?		
0. No	261	87.9
1. Yes	35	11.8
2. Not sure/don't remember	1	0.3
Total	297	100
If you were separated from your baby, was it communicated to you as to why?		
0. No	6	17.6
1. Yes	28	82.4
Total	34	100
Was your feeding choice for your baby (breastfeeding, bottle feeding, both) respected by your providers?		
0. No, never	1	0.3
1. Yes, a few times	10	3.4
2. Yes, most of the time	27	9.1
3. Yes, all the time	255	85.9
4. Not applicable	4	1.3
Total	297	100
Did you receive the support you needed to reach your baby's feeding goals? (i.e. Lactation support)?		
0. No, never	5	1.7
1. Yes, a few times	14	4.7
2. Yes, most of the time	34	11.4
3. Yes, all the time	243	81.8
4. Not applicable	1	0.3
Total	297	100
Were you supported in creating a birth environment that made you feel comfortable?		
0. No, never	3	1
1. Yes, a few times	16	5.4
2. Yes, most of the time	21	7.1
3. Yes, all the time	252	84.8
4. Not applicable	5	1.7
Total	297	100
Thinking about the place where you gave birth, did you feel that the rooms and facilities were clean?		
0. No, never	1	0.3
1. Yes, a few times	5	1.7
2. Yes, most of the time	39	13.1
3. Yes, all the time	251	84.5
4. Not applicable	1	0.3
Total	297	100
Did you feel the place you gave birth was crowded during your birth stay? (i.e. not enough beds, moved from room to room, being in triage a long time)?		
0. No, never	214	72.1

1. Yes, a few times	39	13.1
2. Yes, most of the time	20	6.7
3. Yes, all the time	23	7.7
4. Not applicable	1	0.3
Total	297	100
Did you feel you had access to your preferred place of birth?		
0. No	14	4.8
1. Yes	279	95.2
Total	293	100
Do you think the place you gave birth met your needs?		
0. No, never	6	2
1. Yes, a few times	14	4.7
2. Yes, most of the time	75	25.3
3. Yes, all the time	201	67.9
Total	296	100
In general, did you feel physically safe in or around your place of birth?		
0. No, never	2	0.7
1. Yes, a few times	6	2
2. Yes, most of the time	60	20.2
3. Yes, all the time	229	77.1
Total	297	100

Appendix B: Results from Survey to Prioritize Items (N=14)

No	Domain/Item	N	Notes
	Communication and Autonomy		
1	Did providers or other staff ask your permission/consent before touching or doing procedures or examinations on you?	14	High loading, High priority: retained
2	Did your providers explain to you why they were doing examinations or procedures on you?	12	High loading, High priority: retained
3	Did your providers explain to you why they were doing examinations or procedures on your baby	10	High loading, High priority: retained
4	Did your providers involve you in decisions about your care?	10	High loading, High priority: retained
5	Did you feel informed about what was happening to you during your childbirth?	10	High loading, High priority: retained
6	Did you feel coerced or pressured into a decision by providers?	9	High loading, High priority: retained
7	Did you feel you could ask your providers any questions you had?	8	High loading, High priority: retained
8	Did you feel heard and listened to by your providers?	7	High loading, High priority: retained
9	Did your providers speak to you using language or words you could understand?	7	High loading, High priority: retained
10	Did each new provider introduce themselves to you when they first came to see you?	6	High loading, Moderate priority: retained
11	Did providers check that you understood information that was given to you?	6	High loading, Moderate priority: retained
12	Was your feeding choice for your baby (breastfeeding, bottle) respected by providers?	6	High loading, Moderate priority: retained
13	Did your providers call you by your preferred name?	5	Low loading, Moderate priority: removed
14	Did you feel your birth plan or preferences were respected? (i.e. moving during labor, pain management, music, birthing position)	5	High loading, Moderate priority: retained
15	Were you able to give birth in the position of your choice?	5	High loading, Moderate priority: retained
16	Did your providers explain to you why they were giving medicine?	4	Low priority: removed
17	Did you hold back on asking questions for any reason?	3	Low priority: removed
18	Did providers encourage you to ask questions?	3	Low priority: removed
19	Do you feel your questions were answered when you did ask?	2	Low priority: removed
	Dignity and Respect		
1	Did your providers treat you with respect?	14	High loading, High priority: retained
2	Did providers respect your family or companions who were with you?	14	High loading, High priority: retained
3	Did you feel your providers shouted at you, scolded, insulted, threatened, or talked to you rudely?	13	High loading, High priority: retained
4	Would you say you were discriminated against because of your race, ethnicity, culture, sex, gender, sexual orientation, language, immigration status, religion, income, education, age, marital status, number of children, insurance status, or other attribute?	13	High loading, High priority: retained
5	Did you feel your providers avoided, ignored, or otherwise neglected you?	12	High loading, High priority: retained
6	Did you feel your customs and culture were respected by your providers?	11	High loading, High priority: retained
7	During exams, were you covered up with a cloth or blanket or screened with a curtain so that you did not feel exposed?	11	High loading, High priority: retained
8	Did you feel like your providers handled you roughly, held you down, or physically restrained you?	8	High loading, High priority: retained

9	Did you feel your experience and knowledge were valued?	7	High loading, High priority: retained
10	Did you feel your health information was kept confidential and private by providers?	5	High loading, moderate priority: retained
11	Did providers knock on your rooms door and wait for response before entering?	3	Low priority: removed
	Responsive and Supportive Care		
1	Did you feel you could completely trust your providers with regards to your care?	12	High loading, High priority: retained
2	Did you feel your providers responded in a timely manner when you requested assistance?	11	High loading, High priority: retained
3	Were you allowed to have everyone you wanted (e.g. doula, elder, friends, or family) stay with you during your childbirth?	11	High loading, High priority: retained
4	Did your providers ask about your emotional well-being?	11	High loading, High priority: retained
5	Do you feel your providers did everything they could to help you manage your pain?	10	High loading, High priority: retained
6	In general, did you feel physically safe in or around your place of birth?	10	High loading, High priority: retained
7	Did you feel your providers believed you when you said you were in pain?	9	High loading, High priority: retained
8	Did you receive the support you needed to reach feeding goals? (i.e. Lactation support)	8	High loading, High priority: retained
9	Were you supported in creating a birth environment that made you feel comfortable?	8	High loading, High priority: retained
10	How did you feel about the amount of time you had to wait before being examined by a health care provider (doctor or midwife)?	7	High loading, High priority: retained
11	Did you feel your providers took the best care of you?	5	High loading, Moderate priority: retained
12	Were you separated from your baby at any time after time after the birth?	5	Low loading, Moderate priority: removed
13	How did you feel about the time you waited in triage before being seen and assessed?	4	Low priority: removed
14	Did providers give you information in a way that showed they cared about you?	4	Low priority: removed
15	Thinking about the place where you gave birth, did you feel that the rooms and facilities were clean?	4	Low priority: removed
16	Did you feel the place you gave birth was crowded during your birth stay? (i.e., not enough beds, moved from room to room, being in triage a long time)	4	Low priority: removed
17	Did your providers provide you with resources to help with your emotional well-being if you needed it?	3	Low priority: removed
18	Do you think the place you gave birth met your needs?	3	Low priority: removed
19	Were you able to eat and drink if desired?	2	Low priority: removed
20	Did you feel you had access to your preferred place of birth?	2	Low priority: removed

Notes: Considered high priority if selected by at least half of respondents (N>7) and low priority if selected by a third of respondents (<5).