

Pregnancy Experience and Patient-Centered Counseling Attitudes in Women's Health Care Among Women Obstetricians and Gynecologists

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Abstract

Background

Women's health care depends not only on evidence-based treatment but also on how clinicians communicate uncertainty, validate symptoms, and support decision-making across the reproductive life course. We assessed whether personal pregnancy experience was associated with counseling orientation among women obstetricians and gynecologists.

Methods

We conducted a cross-sectional, anonymous web-based survey of practicing obstetricians and gynecologists. This cross-sectional study used a study-specific questionnaire developed by the authors to evaluate whether obstetricians' and gynecologists' personal reproductive health experiences influence their approach to patients. Analyses were restricted to women physicians. Pregnancy experience was defined by Question 8 (yes/no). The prespecified primary outcome was the ordinal agreement item "Over time, my approach to pregnant patients has changed" (Q41). Prespecified Likert-type outcomes relevant to experiential change, empathy-oriented communication, and counseling framing were analyzed using multivariable proportional-odds ordinal logistic regression and are reported as adjusted odds ratios (aORs) with 95% confidence intervals. False discovery rate was controlled using the Benjamini-Hochberg procedure. Primary complete-case models used $N = 369$; menopause-referencing items used $N = 326$.

Results

Among 382 women physicians, 296 (77.5%) reported pregnancy experience and 86 (22.5%) did not. Pregnancy experience was strongly associated with higher agreement on the primary outcome (aOR 9.86, 95% CI 5.57–17.45; $q < 0.001$). The adjusted probability of selecting "Strongly agree" was 0.686 (95% CI 0.621–0.743) among women with pregnancy experience versus 0.185 (95% CI 0.116–0.273) among women without. Pregnancy experience was also associated with higher endorsement that the change reflects clinical experience (aOR 2.41, 95% CI 1.41–4.10; $q = 0.004$), that communication and empathy training should be increased (aOR 2.10, 95% CI 1.20–3.67; $q = 0.011$), and that personal reproductive experiences influence a physician's approach (aOR 1.83, 95% CI 1.11–3.00; $q = 0.017$). It was associated with lower endorsement of rigid evidence-first wording (aOR 0.33, 95% CI 0.15–0.71; $q = 0.007$).

Conclusions

Among women obstetricians and gynecologists, personal pregnancy experience was associated with a consistent pattern of counseling attitudes marked by stronger endorsement of experiential change and

empathy-oriented communication. Clinician lived experience may therefore be associated with variation in counseling orientation within women's health care.

Introduction

Obstetricians and gynecologists provide counseling across a broad women's health continuum that includes pregnancy, postpartum recovery, perimenopause, and menopause. In these settings, high quality care depends not only on accurate diagnosis and evidence-based treatment, but also on how clinicians validate symptoms, communicate uncertainty, and support individualized decision making. These demands are especially visible in areas such as menopause care, where symptom burden, treatment preferences, and risk communication often require more than protocol-driven responses. Contemporary counseling frameworks therefore emphasize not only the best available evidence, but also shared decision making, active elicitation of patient goals, and communication that is honest, individualized, and clinically usable [1–4]. Recent women's health literature further emphasizes that effective counseling depends on patient-physician communication, informed consent, shared decision making, and equitable, patient-centered clinical interactions [5–7].

Variation in counseling quality remains a recognized issue in women's health care. Despite increasingly detailed guidance, recent work has identified persistent gaps in clinician preparation, variable confidence in menopause counseling, and unequal delivery of evidence-based care across settings [3, 4, 8–12]. Health care practitioners and patients also continue to identify communication, informational support, and stigma as important barriers, suggesting that differences in counseling may reflect more than differences in formal knowledge alone [8, 9]. More broadly, biocultural accounts of menopause emphasize that symptom experience and care seeking are shaped not only by biological change, but also by cultural context, expectations, and the meanings assigned to symptoms [13]. Taken together, this literature suggests that women's health counseling is influenced not only by clinical evidence, but also by person-centered communication, woman-centered care, culturally responsive care, and the way patient priorities are elicited in practice [14–18].

An important question therefore remains unresolved: when clinicians have access to broadly similar scientific evidence, why do they still differ in counseling orientation? One plausible and understudied contributor is clinicians' own lived reproductive experience [15, 16]. Personal experience may influence empathic resonance, perceived salience of symptoms, and the extent to which clinicians prioritize experiential understanding alongside formal knowledge during patient encounters [17, 19]. The issue is not whether lived experience should replace evidence, but whether it may be associated with how clinicians organize counseling around empathy, communication, and patient-centered care within women's health services [20–23].

This question is particularly relevant in obstetrics and gynecology, where clinicians routinely care for patients, whose reproductive experiences may overlap with their own life course. We therefore examined whether personal pregnancy experience is associated with counseling orientation among women

obstetricians and gynecologists, with attention to experiential change, empathy-oriented communication, and counseling framing in women's health care. We hypothesized that pregnancy experience would be associated with stronger endorsement of experiential change and empathy-oriented counseling, together with lower endorsement of rigid evidence-first wording.

Methods

Study design, setting, and participants

We conducted a cross-sectional, anonymous, self-administered web-based survey of practicing obstetricians and gynecologists. The survey targeted clinicians involved in counseling across women's health care settings, including pregnancy, perimenopause, and menopause, and included physicians engaged in decision making for menopausal symptoms. The analytic sample was restricted to women physicians to reduce heterogeneity related to sex-specific lived reproductive experience and to align with questionnaire items that explicitly referred to pregnancy and menopause-related experiences.

The survey was distributed through professional society groups and survey-platform dissemination lists between January 2026 and February 2026 using Google Forms. A total of 700 clinicians were invited through the survey platform, 420 questionnaires were submitted, and 382 eligible women physicians comprised the analytic cohort. Because the survey was implemented in Google Forms, platform-level metrics for unique page views and partial questionnaire starts were not available. Recruitment flow is therefore reported using the available invitation count, submitted questionnaires, and subsequent eligibility restrictions.

Participation was voluntary and anonymous. The form did not request names or direct identifiers, and respondents could exist at any time without penalty. Responses were exported directly from Google Forms into a spreadsheet for cleaning and analysis. To reduce duplicate submissions, records were screened manually using timestamp proximity and response-pattern similarity. No records met the prespecified criteria for duplication, and no submissions were excluded as duplicates.

Survey instrument and development

The questionnaire consisted of 59 numbered items covering clinician characteristics, workload, practice setting, reproductive experience, and Likert-type attitude statements relevant to pregnancy-related care, menopause-related care, and broader counseling attitudes in women's health care. The questionnaire was developed by the research team according to the clinical aims of the study and refined through internal review by clinicians with menopause-care experience to improve wording clarity and face validity. The instrument was not a previously validated psychometric scale, and formal pilot testing, cognitive interviewing, and test-retest evaluation were not performed. Accordingly, the present results should be interpreted as associations with self-reported attitudes rather than as estimates derived from a formally validated latent construct.

To reduce conceptual overlap in inferential analyses, we prespecified one primary counseling-orientation item from the later general-attitudes block: Q41, “Over time, my approach to pregnant patients has changed.” A near-duplicate earlier item from the pregnancy-focused block, Q21, “Overall, my approach to pregnant patients has changed,” was retained in the appendix for transparency regarding the full instrument, but it was not entered into multivariable regression models. This decision was made to avoid double counting a single construct and to maintain a clear hierarchy between primary and secondary outcomes. The overlap between Q21 and Q41 is visible in the appendix of the current questionnaire.

Ethics approval and consent to participate

The study protocol was reviewed and approved by the Acibadem University and Acibadem Healthcare Institutions Medical Research Ethics Committee (ATADEK; approval date: January 2026). The survey collected anonymous, non-identifiable data. The first page of the web survey presented an electronic information sheet and consent statement describing the study purpose, voluntariness, expected completion time, data handling, and contact information. Respondents indicated informed consent by selecting “I agree to participate” and proceeding to the questionnaire.

Questionnaire Development

A study-specific questionnaire was developed by the authors for this research to explore the potential impact of personal reproductive health experiences on clinical attitudes and patient management among obstetricians and gynecologists. The questionnaire was not previously published and was not derived from an existing published instrument. An English version of the questionnaire has been provided as supplementary material.

Exposure

The exposure of interest was personal pregnancy experience, captured by Question 8: “Have you ever been pregnant?” (yes/no).

Outcomes

The prespecified primary outcome was the ordinal agreement item Q41, “Over time, my approach to pregnant patients has changed.”

Secondary outcomes reflected dimensions of counseling orientation relevant to women’s health care. The first domain captured experiential framing, including agreement that the change in approach reflects clinical experience and that personal reproductive experiences influence a physician’s approach. The second domain captured empathy-oriented communication, including agreement that communication and empathy training should be increased. The third domain captured counseling wording related to evidence-centered decision framing, including agreement that decision making should remain evidence based even if empathy increases.

We also examined a prespecified secondary subset of menopause-referencing items among respondents with complete item data: whether physicians with menopause experience may be more empathetic, whether some complaints may be difficult to fully internalize without lived experience, whether scientific knowledge compensates for this difference, and whether not having experienced menopause does not limit quality of care.

All attitudinal outcomes used ordered Likert-type response categories ranging from lower to higher agreement.

Descriptive variables and covariates

Clinician characteristics were summarized by pregnancy experience using counts and percentages. Prespecified adjustment variables included years in medical practice, professional role, institution type, annual number of deliveries, and annual number of menopause-related visits. These variables were selected because they plausibly relate both to pregnancy experience and to counseling attitudes. Because age and years in practice may be collinear, age was evaluated as an alternative adjustment variable in sensitivity analyses. Covariate coding decisions and rationale are summarized in Supplementary Table S1.

Missing data

Key participant characteristics and the exposure variable were required fields. Attitude items were optional and therefore showed item-level missingness. Primary analyses used complete-case data for each modeled outcome. For the primary outcome and other non-menopause-referencing items, complete-case models used N=369. For menopause-referencing outcomes, complete-item analyses used N=326.

To assess whether item nonresponse was associated with pregnancy experience, we quantified missingness by Q8 status and compared groups using chi-square tests with Benjamini-Hochberg correction. After false-discovery-rate adjustment, these differences were attenuated, which reduces concern that differential item nonresponse alone explains the observed associations. Nevertheless, because complete-case analysis may remain vulnerable to selection mechanisms related to unmeasured factors, this issue is addressed explicitly in the limitations. Item-level missingness by pregnancy experience is summarized in Supplementary Table S2.

As an additional robustness analysis, we repeated the primary model using multiple imputation by chained equations-style predictive imputation for the missing ordinal outcome and inverse-probability-of-complete-case weighting; corresponding results are presented in Supplementary Table S4.

Statistical analysis

Baseline characteristics were summarized by pregnancy experience using counts and percentages. For each ordinal outcome, we fit adjusted proportional-odds ordinal logistic regression models and reported

adjusted odds ratios with 95% confidence intervals. Odds ratios greater than 1 indicate higher odds of selecting stronger agreement categories among respondents with pregnancy experience compared with those without.

Because nine prespecified outcomes were analyzed, we controlled the false discovery rate using the Benjamini-Hochberg procedure. For the primary outcome, we also estimated adjusted predicted probabilities of selecting the highest agreement category by marginal standardization.

For robustness, we conducted a specification-curve analysis across six clinically interpretable covariate sets for the primary outcome: base model; removal of annual deliveries; removal of annual menopause visits; removal of institution type; removal of professional role; and substitution of age for years in practice. Results from the age-for-years sensitivity analysis are summarized in Supplementary Table S5, and specification-curve results for the primary outcome are summarized in Supplementary Table S6 and Supplementary Figure S1.

The proportional-odds assumption was evaluated for each ordinal model using a Brant-type global heterogeneity test across cumulative logits; no material violation was defined as $P > 0.01$, and borderline results between 0.01 and 0.05 were retained with cautious interpretation. Model-specific results are summarized in Supplementary Table S3.

The study is reported in line with CHERRIES recommendations for web-based surveys and STROBE principles for cross-sectional analyses.

Results

Study sample

A total of 700 clinicians were invited through the survey platform, 420 questionnaires were submitted, and 382 eligible women physicians comprised the analytic cohort (Figure 1). Pregnancy experience (Q8) was reported by 296/382 women (77.5%), whereas 86/382 (22.5%) reported no pregnancy experience. The complete-case sample for the primary outcome and other non-menopause-referencing outcomes was $N=369$. The complete-item sample for menopause-referencing outcomes was $N=326$.

Women without pregnancy experience were concentrated in the youngest age category. Among women without pregnancy experience, 67/86 (77.9%) were aged 25–34 years. In contrast, women with pregnancy experience showed a broader age distribution, with 104/296 (35.1%) aged 25–34 years, 118/296 (39.9%) aged 35–44 years, 38/296 (12.8%) aged 45–54 years, and 36/296 (12.2%) aged 55 years or older. Practice seniority followed a similar pattern, with longer time in practice more common among women with pregnancy experience. Broader baseline differences in professional role, institution type, and workload are summarized in Table 1.

Primary outcome

Pregnancy experience was strongly associated with higher agreement on the prespecified primary outcome, Q41, “Over time, my approach to pregnant patients has changed” (aOR 9.86, 95% CI 5.57–17.45; FDR $q < 0.001$; $N = 369$; Table 2). On the probability scale, the adjusted probability of selecting the highest agreement category (“Strongly agree”) was 0.686 (95% CI 0.621–0.743) among women with pregnancy experience versus 0.185 (95% CI 0.116–0.273) among women without pregnancy experience (Figure 2). These findings indicate a marked difference in counseling orientation according to personal pregnancy experience.

Secondary counseling-attitude outcomes

A coherent pattern was observed across the secondary outcomes. Pregnancy experience was associated with higher agreement that the change in approach reflects clinical experience (aOR 2.41, 95% CI 1.41–4.10; $q = 0.004$), that communication and empathy training should be increased (aOR 2.10, 95% CI 1.20–3.67; $q = 0.011$), and that personal reproductive experiences influence a physician’s approach (aOR 1.83, 95% CI 1.11–3.00; $q = 0.017$). In contrast, pregnancy experience was associated with lower agreement with the statement that decision-making should remain evidence-based even if empathy increases (aOR 0.33, 95% CI 0.15–0.71; $q = 0.007$). This pattern is best interpreted as lower endorsement of rigid evidence-first wording rather than as evidence of reduced commitment to evidence-based clinical care.

Menopause-referencing outcomes

Among the 326 women with complete data for menopause-referencing items, pregnancy experience was associated with higher agreement that physicians with menopause experience may be more empathetic (aOR 1.92, 95% CI 1.18–3.13; $q = 0.011$) and that some complaints may be difficult to fully internalize without lived experience (aOR 5.40, 95% CI 3.20–9.12; $q < 0.001$). Pregnancy experience was also associated with lower agreement that scientific knowledge fully compensates for this difference (aOR 0.49, 95% CI 0.30–0.80; $q = 0.007$) and that not having experienced menopause does not limit quality of care (aOR 0.48, 95% CI 0.28–0.80; $q = 0.007$) (Table 2; Figure 3). Taken together, these findings suggest that lived reproductive experience may be associated with how clinicians interpret empathy, symptom understanding, and communication in menopause-related care.

Proportional-odds diagnostics

The proportional-odds assumption was generally met across the prespecified outcome models; one model showed a clear global departure and one showed a borderline deviation, whereas the remaining models did not demonstrate material violation (Supplementary Table S3). Specifically, the primary outcome showed a borderline global deviation ($P = 0.038$) that was retained under the prespecified criterion with cautious interpretation, whereas the item “It may be difficult to internalize some complaints” showed a clearer global departure ($P < 0.001$). All other models met the prespecified criterion for no material violation.

Robustness analysis

The primary association remained large across the six prespecified adjustment specifications, with adjusted odds ratios ranging from 6.98 (95% CI 4.07–11.98) to 9.87 (95% CI 5.58–17.47). When age was substituted for years in practice, the direction and magnitude of the association remained similar (aOR 9.45, 95% CI 5.37–16.62). These findings support the robustness of the primary result across clinically plausible alternative adjustment choices (Supplementary Table S5; Supplementary Table S6; Supplementary Figure S1).

Discussion

In this cross-sectional survey of women obstetricians and gynecologists, personal pregnancy experience was associated with a coherent and internally consistent pattern of counseling attitudes relevant to women's health care. Even after adjustment for practice seniority, professional role, institution type, and workload, pregnancy experience was associated with markedly higher endorsement that one's approach to pregnant patients changes over time, greater support for empathy-oriented communication and training, and greater endorsement of the view that personal reproductive experiences can shape clinical approaches. Taken together, these findings suggest that counseling orientation in women's health care may vary systematically according to clinicians who lived reproductive experience.

These findings should not be interpreted as evidence that physicians with pregnancy experience provide less evidence-based care. Our study assessed self-reported attitudes rather than observed counseling behavior, prescribing patterns, or patient outcomes. The lower endorsement of the statement that decision-making should remain evidence-based even if empathy increases is more appropriately interpreted as lower endorsement of a rigid wording frame than as a rejection of evidence-based practice. In women's health care, evidence-based care and empathic communication are not competing standards. Rather, high-quality counseling depends on how evidence, uncertainty, symptom interpretation, and patient values are translated into patient-facing conversations [1-7]. This interpretation is also consistent with literature on person-centered and woman-centered care, which emphasizes communication quality, shared decision making, and the translation of evidence into individualized clinical encounters [19-23].

The practical implication of the present findings is education rather than opposition. If reproductive experience is associated with counseling orientation, then variation in women's health counseling may arise not only from differences in formal knowledge, but also from differences in communication framing, empathic resonance, and the interpretation of symptoms and priorities during clinical encounters. Training strategies in obstetrics and gynecology may therefore benefit from explicitly integrating evidence appraisal, empathic communication, symptom validation, and patient-centered decision support [5-7,19,20,22,23]. This may be particularly relevant in areas such as menopause care, where patients frequently report unmet informational needs, communication barriers, and stigmatized

experiences of symptom disclosure, and where clinicians continue to report gaps in confidence, preparation, and consistency of care delivery [8-12, 21].

At a broader conceptual level, the present findings align with biocultural and experiential accounts of reproductive and menopausal health. Menopausal experience is shaped not only by hormonal change, but also by culture, language, expectations, and clinical interaction [13]. Within that broader context, it is plausible that clinicians' own reproductive experiences act as life-course reference points that influence how symptoms, uncertainty, and patient concerns are framed in care discussions [14,15,18]. This may help explain why variation in counseling persists even in settings where clinicians have access to broadly similar guidelines and clinical evidence [21-23].

This study has several strengths. These include restriction to women physicians, prespecified ordinal outcomes, multivariable adjustment, predicted-probability presentation for the primary outcome, and specification-curve robustness analyses showing that the main association remained large across clinically plausible covariate sets. Several limitations should also be emphasized. The cross-sectional design does not support causal inference. Residual confounding remains possible, particularly because pregnancy experience is closely related to age, career stage, and life stage. In addition, the instrument was not a previously validated psychometric scale, the data reflect self-reported attitudes rather than observed counseling behaviors, and complete-case modeling may remain vulnerable to unmeasured selection mechanisms. Accordingly, the present findings should be interpreted as attitudinal associations relevant to counseling orientation rather than as direct evidence of differences in real-world clinical practice.

Future studies should examine whether these attitudinal differences translate into observable differences in counseling encounters, treatment discussions, shared decision-making processes, and patient-reported experience in women's health care. Such work would help clarify whether lived experience influences not only how clinicians think about counseling, but also how counseling is delivered and received in practice.

Conclusions

Among women obstetricians and gynecologists, personal pregnancy experience was associated with stronger endorsement of experiential change and empathy-oriented counseling attitudes, together with lower endorsement of rigid evidence-first wording. These findings support the view that clinician lived experience may be associated with variation in counseling orientation within women's health care, including menopause-related care. Educational and implementation strategies may therefore benefit from addressing not only scientific knowledge, but also the communication frameworks through which evidence, uncertainty, and patient-centered support are conveyed in clinical practice.

Declarations

Ethics approval and consent to participate

The study protocol was reviewed and approved by the Acibadem University and Acibadem Healthcare Institutions Medical Research Ethics Committee (ATADEK; approval date: January 2026). Participants provided informed consent by selecting “I agree to participate” and proceeding to the questionnaire.

Consent for publication

Not applicable.

Availability of data and materials

De-identified data may be made available from the corresponding author upon reasonable request, subject to institutional policies and ethical restrictions.

Competing interests

The authors declare that they have no competing interests.

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Authors' contributions

Authors' contributions

EHC, OD, PK, AEY, UKD conceived the study and designed the survey. EHC and OD managed data curation and quality control. OD, UKD, BO, AEY, EHC performed statistical analyses. EHC, PK, AEY, BO, OD drafted the manuscript. All authors contributed to interpretation of results, critically revised the manuscript, and approved the final version.

Reporting guidelines

The study is reported in line with CHERRIES recommendations for web-based surveys and STROBE principles for cross-sectional analyses.

Declaration of generative AI and AI-assisted technologies

The authors declare that no generative AI or AI-assisted technologies were used in the writing of this manuscript.

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Figures

Figure 1. Survey flow diagram (STROBE-compliant).

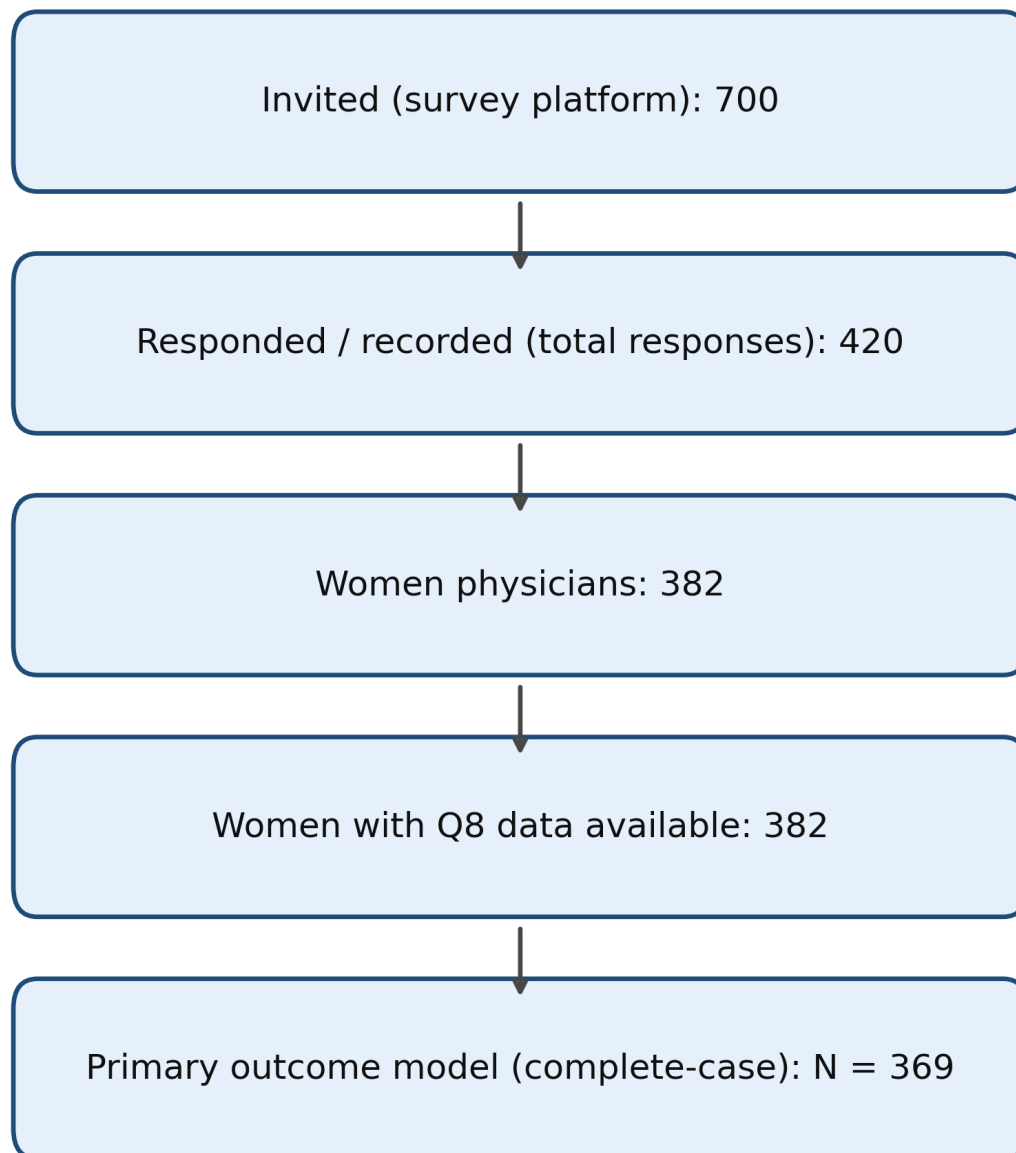


Figure 1

STROBE-style flow diagram of survey participation and analytic cohort selection.

A total of 700 clinicians were invited through the survey platform, 420 questionnaires were submitted, and 382 eligible women physicians comprised the analytic cohort. Q8 (pregnancy experience) was available for all 382 women. The complete-case sample for the primary model was N=369. Unique page-view and partial-start metrics were not available in Google Forms.

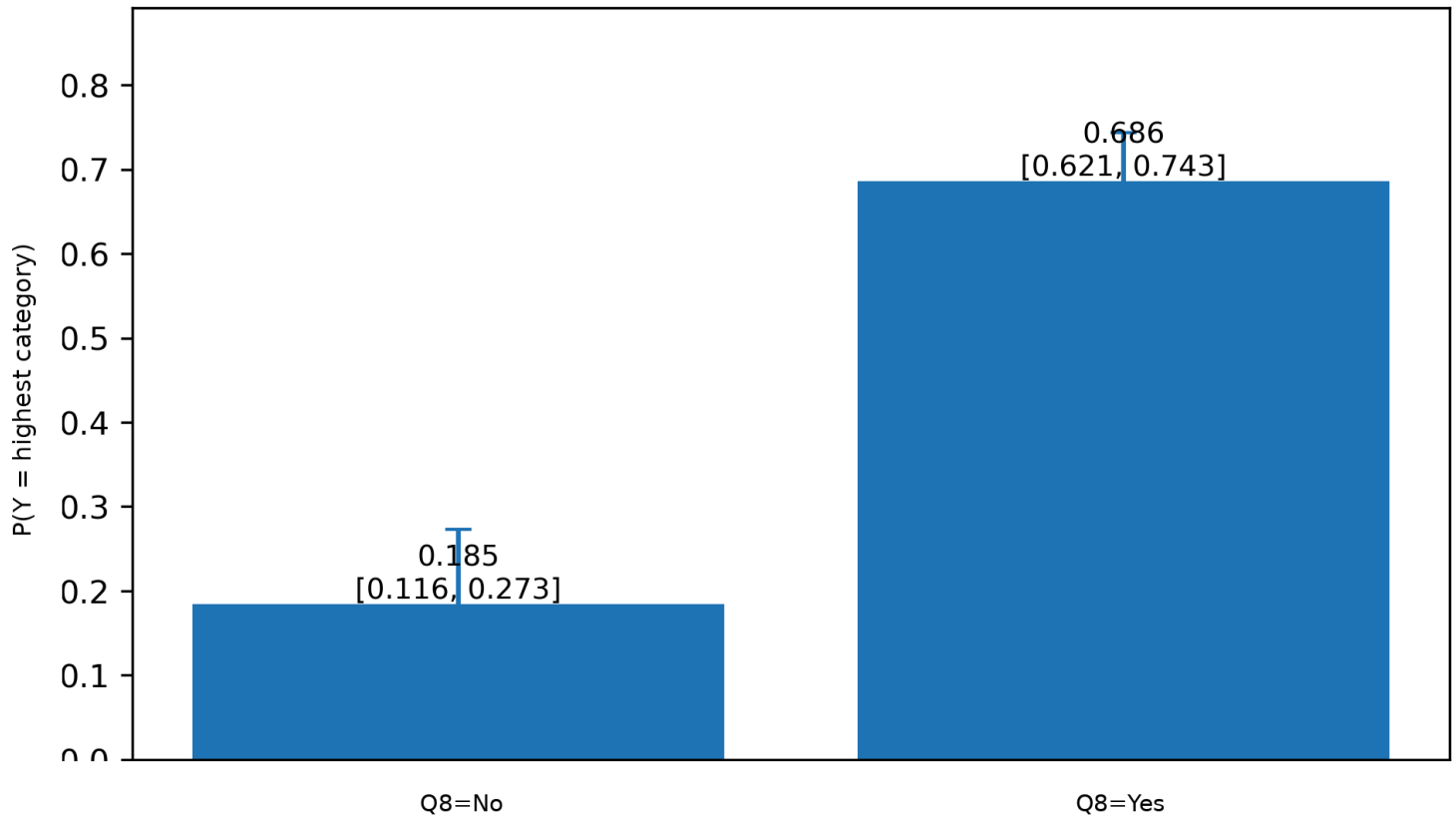


Figure 2

Adjusted predicted probability of selecting the highest agreement category for the primary outcome. Model-based adjusted predicted probability of selecting “Strongly agree” (response=5) for the primary outcome, “Over time, my approach to pregnant patients has changed,” stratified by pregnancy experience (Q8). Probabilities were estimated by marginal standardization from the primary adjusted proportional-odds model (N=369). Error bars represent 95% confidence intervals.

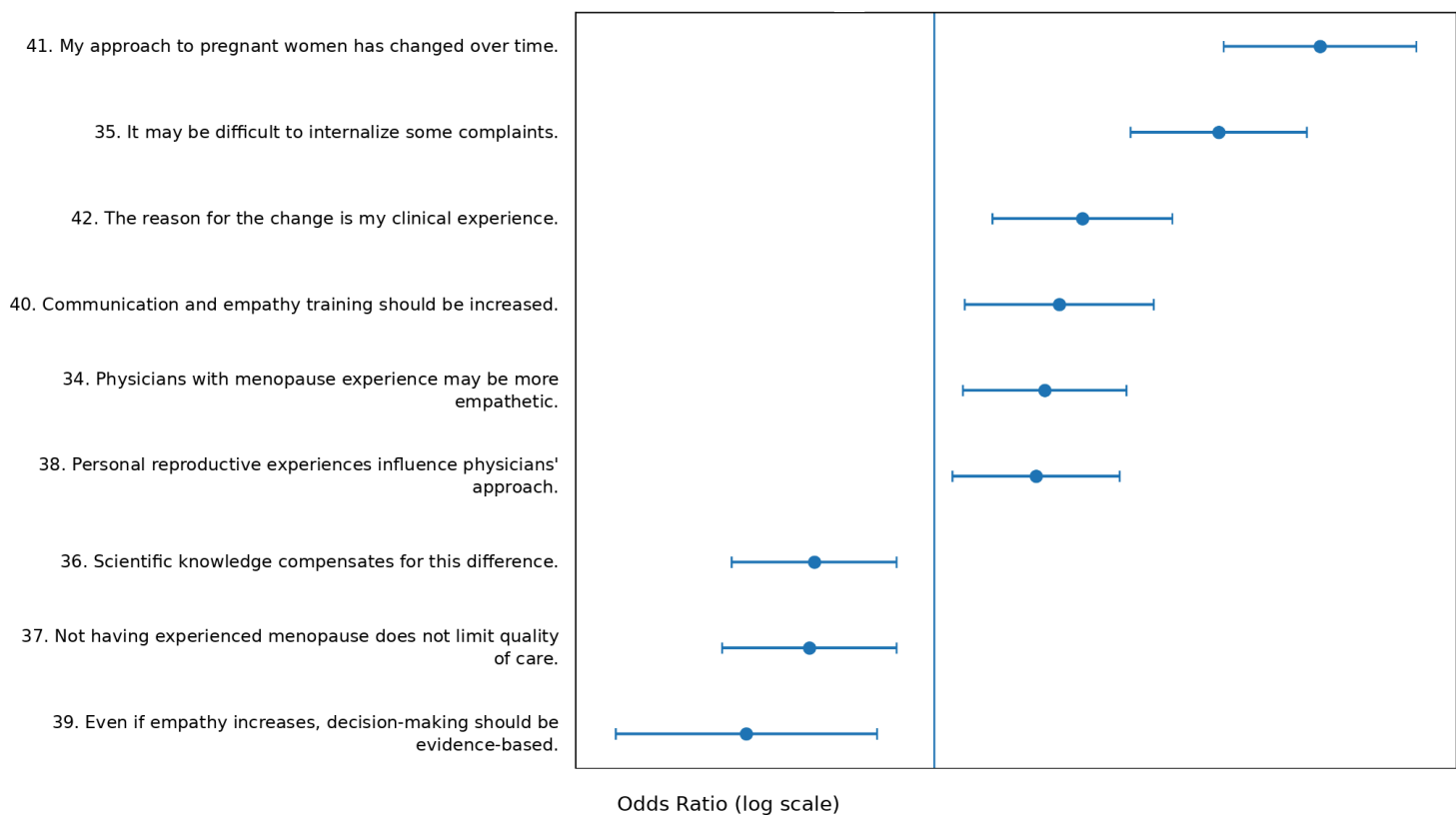


Figure 3

Adjusted odds ratios for prespecified attitude outcomes by pregnancy experience (Q8).

Forest plot of adjusted proportional-odds ordinal logistic regression results comparing women physicians with pregnancy experience (Q8=Yes) versus without (Q8=No). Points indicate adjusted odds ratios and horizontal bars indicate 95% confidence intervals on a log scale. The vertical reference line denotes OR=1. Sample sizes differ due to item-level missingness (N=369 for non-menopause-referencing items; N=326 for menopause-referencing items).

Supplementary Files

This is a list of supplementary files associated with this preprint. Click to download.

- [supplementary.docx](#)
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