Health provider perspectives on barriers to prenatal class attendance in Iran: A qualitative study

Abstract

Background: World Health Organization emphasizes that childbirth preparation is a key component of antenatal care, reducing maternal mortality and improving birth experiences. Understanding participation barriers requires resource-based interventions and qualitative inquiry. This study explored health provider perspectives on barriers to prenatal class attendance in Iran.

Methods: This qualitative study included 36 participants, purposively selected among class instructors and key informants across 30 health centers from May 2024 to March 2025. Data were collected via semi-structured, in-depth individual interviews using an interview guide. Data were analyzed using conventional content analysis, following Graneheim and Lundman, with attention to the trustworthiness of the findings.

Results: After data saturation, the analysis yielded 452 codes, which were organized into 94 sub-sub-themes, 10 sub-themes, 4 themes, and 1 main theme. The main theme, "Navigating a whirlwind of challenges," emerged from four themes: Lack of Accessibility; Lack of Acceptability; Negative Feedback; and Lack of Rethinking to Start Over.

Conclusions: Addressing these key areas can help health systems improve prenatal class attendance. Effective prenatal classes should be accessible, acceptable, available, affordable, accountable, and include high-quality updates. Implementing the perspectives of healthcare providers, particularly midwives, requires coordinated policy support and ongoing evaluation.

Keywords: prenatal class, qualitative study, prenatal care, health providers

Introduction

The World Health Organization (WHO) emphasizes childbirth preparation as a vital component of high-quality antenatal care, essential for reducing maternal and perinatal mortality and fostering positive, empowering childbirth experiences(1, 2). In line with global strategies for maternal and newborn health, countries worldwide have implemented resource-based interventions and structured educational initiatives to support women and their families throughout the transition to parenthood(3, 4). Antenatal education classes are widely recommended for pregnant women and their nominated-based outreach, flexible scheduling, and digital hybrid models have been leveraged to improve accessibility; nevertheless, inequities in participation persist among socio-economically marginalized and culturally diverse populations(5, 6).

In the context of the Eastern Mediterranean region and specifically Iran, maternal healthcare policy has placed strategic emphasis on promoting physiological childbirth(7). Since 2008, the Iranian Ministry of Health and Medical Education (MOHME) has integrated structured childbirth preparation classes (consisting of eight two-hour modules) into the primary healthcare network nationwide(8). This initiative was explicitly designed to improve physiological preparedness, empower mothers, and curb the escalating rate of non-medically indicated cesarean deliveries, which remains among the highest globally(9, 10). Following the launch of the national Health Transformation Plan (HTP) in 2014, significant financial and institutional incentives were allocated to promote natural birth and provide free-of-charge childbirth preparation classes across public health centers and university-affiliated maternity hospitals(11, 12).

Despite these extensive policy initiatives, free service availability, and nationwide infrastructural expansion, Iran has struggled to achieve its targeted 10% annual reduction in cesarean section rates, with primary and total cesarean delivery rates remaining persistently high(13). Alarmingly, maternal participation in these classes remains strikingly low across many provinces. For example, at Mashhad University of Medical Sciences the largest tertiary healthcare hub in northeastern Iran overseeing a diverse metropolitan and suburban population longitudinal records over 17 years indicate that overall attendance has hovered around merely five percent of eligible pregnant women, despite the complete waiver of service fees(14).

This persistent divergence between policy design and real-world uptake constitutes a major public health dilemma(15). Low attendance and maternal hesitation to engage with childbirth education not only undermine the cost-effectiveness of established health system infrastructures, but are also directly linked to unmanaged labor fear, heightened reliance on elective cesarean sections, and compromised birth satisfaction(16). While quantitative epidemiological surveys have intermittently mapped demographic correlates of class non-attendance, they often fail to capture the nuanced, institutional, relational, and contextual complexities governing service delivery and uptake(17).

In particular, the perspectives of frontline healthcare providers predominantly midwives, prenatal educators, maternal health coordinators, and primary care managers remain critically underrepresented in the scientific literature(7, 18). Healthcare providers occupy a unique dual vantage point: they are simultaneously responsible for implementing ministerial directives and navigating daily organizational barriers, while also interacting directly with pregnant women and interpreting their socio-cultural reservations, informational needs, and structural constraints(19) (20). Understanding the lived experiences, operational bottlenecks, and tacit observations of these key informants is essential for identifying why established services fail to attract their target population(21, 22).

To date, comprehensive qualitative inquiries specifically capturing the grounded perspectives of instructors and administrative key informants regarding the multi-level barriers to prenatal class attendance in the Iranian healthcare delivery system have been scarce. Addressing this evidence gap is essential for informing evidence-based policy revisions, restructuring curriculum delivery, and fostering equitable, women-centered antenatal care. Therefore, the present qualitative study was conducted to explore healthcare provider perspectives on barriers to prenatal class attendance in Iran.

Methods

Study design

This study employs a concurrent mixed-methods design, comprising quantitative (descriptive-analytical) and qualitative phases. The quantitative phase examined satisfaction and experiences of new mothers attending or not attending childbirth preparation classes across 30 health centers in Mashhad, Iran. The qualitative phase, reported using the COREQ checklist(17), uses content analysis to explore perspectives of health providers and key informants, and was conducted from May 2024 to March 2025.

Participants and Sampling Strategy

A purposive sampling method with a maximum variation strategy was employed to recruit key informants and healthcare providers involved in childbirth preparation classes across 30 primary and comprehensive health centers affiliated with Mashhad University of Medical Sciences between May 2024 and March 2025. Maximum variation was sought across professional roles (certified midwife instructors and maternal health coordinators/managers), academic qualifications (BSc, MSc, and PhD), and the socioeconomic catchment areas of the health centers (urban central, suburban, and marginalized/vulnerable districts).

The final study population comprised 36 participants, including 31 certified midwife instructors actively conducting prenatal classes and 5 senior managers and maternal health department coordinators. Inclusion criteria were: (1) having at least five years of continuous experience in conducting or supervising childbirth preparation classes; (2) direct clinical and educational engagement with pregnant women within the primary healthcare network; and (3) willingness to provide rich experiential accounts. In the Iranian healthcare system, primary healthcare centers deliver comprehensive health services across life stages; certified midwives are specifically responsible for maternal healthcare and conducting standardized 8-session childbirth education modules. Exclusion criteria were reluctance to continue the interview or incomplete recordings (no participant dropped out). The detailed demographic profiles of the participants, including their professional roles, age, years of experience, and educational qualifications, are summarized in Table 1.

In qualitative methodology, sample size is not computed using statistical power formulas; rather, it is guided by data adequacy and inductive saturation(23, 24). Data collection and content analysis proceeded concurrently. Data saturation was achieved at the 34th interview, at which point no novel codes or sub-themes emerged and informational redundancy was established. To verify theoretical stability and confirm that no subtle dimensions were overlooked, two additional confirmatory interviews were conducted, bringing the final sample size to 36.

Table 1: Individual Demographic Profile of Study Participants (N=36)					
Participant ID	**Professional Role**	**Age (Years)**	**Work Experience (Years)**	**Educational Qualification**	**Practice Setting / Center Type**
P1	Certified Midwife Instructor	34	8	BSc in Midwifery	Urban Central
P2	Certified Midwife Instructor	41	16	MSc in Midwifery	Suburban District
P3	Certified Midwife Instructor	38	12	BSc in Midwifery	Marginalized/Vulnerable Area
P4	Certified Midwife Instructor	29	6	BSc in Midwifery	Urban Central
P5	Maternal Health Coordinator	47	22	MSc in Reproductive Health	Health Network Headquarters
P6	Certified Midwife Instructor	45	19	BSc in Midwifery	Suburban District
P7	Certified Midwife Instructor	36	10	MSc in Midwifery	Urban Central
P8	Certified Midwife Instructor	52	26	BSc in Midwifery	Marginalized/Vulnerable Area
P9	Senior Health Manager	50	24	PhD in Reproductive Health	District Health Center
P10	Certified Midwife Instructor	33	7	BSc in Midwifery	Suburban District
P11	Certified Midwife Instructor	39	14	BSc in Midwifery	Urban Central
P12	Certified Midwife Instructor	42	15	MSc in Midwifery	Urban Central
P13	Certified Midwife Instructor	31	6	BSc in Midwifery	Marginalized/Vulnerable Area
P14	Maternal Health Coordinator	44	18	MSc in Midwifery	Health Network Headquarters
P15	Certified Midwife Instructor	37	11	BSc in Midwifery	Suburban District
P16	Certified Midwife Instructor	40	13	MSc in Reproductive Health	Urban Central
P17	Certified Midwife Instructor	35	9	BSc in Midwifery	Marginalized/Vulnerable Area
P18	Certified Midwife Instructor	48	21	BSc in Midwifery	Suburban District
P19	Senior Health Manager	53	27	PhD in Maternal & Child Health	District Health Center
P20	Certified Midwife Instructor	30	5	BSc in Midwifery	Urban Central
P21	Certified Midwife Instructor	43	17	MSc in Midwifery	Marginalized/Vulnerable Area
P22	Certified Midwife Instructor	36	10	BSc in Midwifery	Suburban District
P23	Certified Midwife Instructor	49	23	BSc in Midwifery	Urban Central
P24	Certified Midwife Instructor	32	7	MSc in Midwifery	Marginalized/Vulnerable Area
P25	Certified Midwife Instructor	41	15	BSc in Midwifery	Urban Central

P26	Maternal Health Coordinator	46	20	MSc in Reproductive Health	Health Network Headquarters
P27	Certified Midwife Instructor	38	12	BSc in Midwifery	Suburban District
P28	Certified Midwife Instructor	44	18	MSc in Midwifery	Urban Central
P29	Certified Midwife Instructor	37	11	BSc in Midwifery	Marginalized/Vulnerable Area
P30	Certified Midwife Instructor	34	8	BSc in Midwifery	Suburban District
P31	Certified Midwife Instructor	46	21	BSc in Midwifery	Urban Central
P32	Certified Midwife Instructor	30	5	MSc in Midwifery	Marginalized/Vulnerable Area
P33	Certified Midwife Instructor	43	16	BSc in Midwifery	Suburban District
P34	Certified Midwife Instructor	39	13	BSc in Midwifery	Urban Central
P35	Certified Midwife Instructor	42	14	MSc in Midwifery	Suburban District
P36	Senior Health Manager	51	25	PhD in Reproductive Health	District Health Center

Data Collection

Data were gathered through face-to-face, individual, in-depth semi-structured interviews conducted by an assistant professor specializing in reproductive health and experienced in qualitative research. Prior to data collection, orientation sessions were held to brief participants on the study's objectives, voluntary nature, and confidentiality, followed by obtaining written informed consent.

All interviews took place in a quiet, private room at the participants' respective healthcare centers and lasted between 45 and 70 minutes (mean: 58 minutes). An interview guide with open-ended questions was utilized, beginning with a broad opening question: *"What is your experience with conducting childbirth preparation classes?"* Subsequent exploration addressed core barriers: *"What operational and systemic challenges impede the optimal implementation of these classes?"*, *"From your perspective, what factors make prenatal education less desirable for pregnant women?"*, and *"Why do some women decline or discontinue attending these sessions?"* Deepening exploratory probes were systematically applied (e.g., *"What do you mean by that?"*, *"Could you elaborate on this issue?"*, *"Can you provide a concrete example from your practice?"*). In addition to audio-recording all sessions with prior consent, reflective field notes capturing non-verbal cues (tone of voice, emotional expressions, body posture), environmental context, time, and location were documented immediately during and after each interview.

Data analysis

Data were analyzed using conventional qualitative content analysis as proposed by Graneheim and Lundman(25), allowing for identification of explicit and latent content, as well as concepts at varying levels of abstraction. The analysis followed five steps: transcription of interviews, repeated reading for comprehension, division into meaning units with summaries and coding, classification of codes into sub-themes based on similarities and differences, and extraction of overarching themes representing latent content. Initial coding of 83 pages of transcribed data, focused on challenges of prenatal classes, remained close to the text, reflecting the participants' explanations. Subsequently, codes were synthesized into sub-themes and themes. The first author conducted the primary analysis, and all authors discussed and achieved consensus on the interpretation of barriers to prenatal class attendance and the final themes.

Trustworthiness of the findings

To ensure the trustworthiness of findings, the research addressed dependability, transferability, confirmability, credibility and authenticity(26). Member checking, involving five participants validating the accuracy and relevance of coded interview data, was also employed. Transferability was supported by providing a rich, detailed description of the method and context, enabling readers

to assess applicability to other settings. Confirmability was strengthened by clearly documenting all research steps for potential replication. Credibility was enhanced by fostering a comfortable and trusting interview environment, allowing participants to freely express their opinions. Additionally, seven participants were interviewed before and after childbirth, and their transcripts were compared. Authenticity was promoted by including relevant quotes from multiple participants for each identified subtheme.

Results

A total of 36 participants (31 prenatal class midwife instructors and 5 senior maternal health managers) from 30 comprehensive health centers participated in the study. Inductive conventional content analysis of the qualitative transcripts yielded 452 primary codes (condensed meaning units). Through an ongoing comparative and abstraction process in accordance with the Graneheim and Lundman framework, these codes were clustered into 94 sub-sub-themes (categories), which subsequently formed 10 sub-themes and 4 major themes. Finally, one overarching core theme emerged: **"Navigating a whirlwind of challenges"**.

This core theme reflects how pregnant women and healthcare providers find themselves entangled in a spiral, complex, and mutually reinforcing vortex of structural, physical, cultural, and organizational barriers that collectively hinder regular prenatal class attendance (Figure 1). The four major themes and their corresponding sub-themes are detailed below and systematically presented in Table 2.

1. Lack of Accessibility

The theme of "Lack of Accessibility" emerged from two sub-themes: "Distance from classes to residence" and "Instructor's lack of responsiveness due to multiple tasks." Participants emphasized that logistical and physical barriers critically diminish mothers' motivation to attend. With respect to distance, factors such as long distances between suburban or rural residences and urban health centers, insufficient or costly public transportation, and the absence of evening classes for employed women were highlighted as major obstacles. As one participant reflected:

"…mothers living in suburban and rural areas must take a taxi or two buses to reach the health center, and for many of them the fare costs more than what they would learn in one session…" (Participant 8)

Regarding the instructor's lack of responsiveness, class cancellations or instructor delays caused by competing clinical obligations severely frustrated mothers who had traveled long distances. Midwives reported being overwhelmed by parallel duties including childhood vaccination, periodic screening, and routine maternal follow-up which drastically compromised their availability and responsiveness to mothers' counseling needs. As one participant reflected:

"Pregnant mothers who travel long distances at their own expense to attend classes are frustrated when those classes are cancelled due to a high volume of patients. Cancelling the class for these mothers, or delaying other patients by holding it, discourages them from attending future sessions due to the distance." (Participant 7)

2. Lack of Acceptability

The theme of "Lack of Acceptability" emerged from three sub-themes: "Lack of standard classroom space," "Lack of updating educational content," and "Lack of availability."

Concerning the standard classroom space, instructors voiced serious concerns regarding inadequate physical infrastructure. Many classrooms are non-ergonomic, poorly ventilated, lacking in privacy, and too cramped to allow mothers to lie comfortably on mats for pelvic exercises. As one midwife highlighted:

"*…our classroom was originally a vaccination room; there is no ventilation, no privacy, and when ten mothers have to lie down on mats for the exercise part, there is simply no space*…" (Participant 24)

Regarding the lack of updating educational content, participants criticized the ministerial curriculum for remaining static for nearly 16 years, relying on repetitive theoretical lectures rather than interactive, dynamic modalities (e.g., yoga, Pilates, audiovisual demonstrations). This stagnation causes classes to lose their competitive edge against modern digital platforms and private alternatives. As one experienced instructor stated:

"*I have been conducting prenatal classes for 15 years. The content needs to be updated. This content is very disappointing in today's world where cyberspace and many pages are trying to attract customers. The content of the classes sent by the Ministry of Health needs to be updated and more creative methods added to it. Exercises such as yoga, Pilates or newer content will increase the enthusiasm of mothers to participate in the classes. Repetitive content is boring for both us and the mothers*." (Participant 12)

Finally, with respect to the lack of availability, structural barriers such as a lack of dedicated instructors, shortages of instructional materials, and the complete absence of promotional budgets diminished the overall attractiveness of the classes.

As one midwife highlighted: "*…there is only one instructor for the whole comprehensive health center; when she is on leave or busy with reports, the class simply does not hold, and no educational booklets or pamphlets have been distributed for years*…" (Participant 31)

3. Negative Feedback

The theme of "Negative Feedback" emerged from three sub-themes.

Regarding transferring previous unpleasant experiences from others, participants noted that maternal decisions are heavily influenced by vicarious social narratives; horror stories of traumatic labor shared by sisters, friends, or relatives cultivate deep-seated fear and foster a preference for elective cesarean section, rendering prenatal classes seemingly irrelevant. As one midwife highlighted:

"*…the mother comes to the first session and says her mother and sister told her these classes are useless and that childbirth is nothing but suffering, so why should she waste her time*…" (Participant 5)

Concerning the misunderstanding of the class title, the label "Childbirth Preparation Classes" was identified as misleading, as mothers often assume the classes are exclusively designed for women committed to unmedicated vaginal delivery, alienating those planning cesareans, twin deliveries, or vaginal birth after cesarean (VBAC). As one midwife highlighted:

"*…when mothers hear the title 'childbirth preparation class,' they think it is only for those who want a normal delivery without anesthesia; mothers who have decided on a cesarean tell us on the phone that this class is not for them*…" (Participant 18)

Most critically, regarding the disconnection of the care loop between health and hospital, participants highlighted a profound systemic discontinuity between primary health centers and hospital labor wards. When women who have diligently practiced breathing and relaxation techniques arrive at the hospital, they frequently encounter rigid institutional routines, disbelief among obstetric residents regarding physiological birth, restrictions on mobility, and refusal to permit chosen birth companions. As one midwife highlighted:

"*So where is the dignity-based and respectful maternity care for the mother? A mother who, with a severe fear of childbirth, has agreed to choose vaginal delivery in the classroom, why is she not allowed to get out of her bed in the hospital and do pain relief procedures? Why should her mother, who has attended eight classes with her, not be a doula during the delivery? Why are two women giving birth at the same time in a single-person delivery room? All these issues make mothers not trust our words the next time*." (Participant 25)

4. Lack of Rethinking to Start Over

The theme of "Lack of Rethinking to Start Over" emerged from two sub-themes: "Need to revise policies" and "The need for a public movement." Frontline midwives and health managers agreed that overcoming these systemic bottlenecks requires structural re-engineering and societal mobilization. At the organizational level, with respect to the need to revise policies, participants urged health authorities to introduce financial compensation and performance incentives for instructors, reduce non-instructional clinical workloads, and provide administrative flexibility (such as offering individualized or weekend sessions for mothers with severe tokophobia). As one midwife highlighted:

"*…the instructor who holds the prenatal class alongside vaccination and maternal care receives no extra credit or payment; if the deputy of health considered incentives and reduced her parallel duties, the classes would run much more consistently*…" (Participant 22)

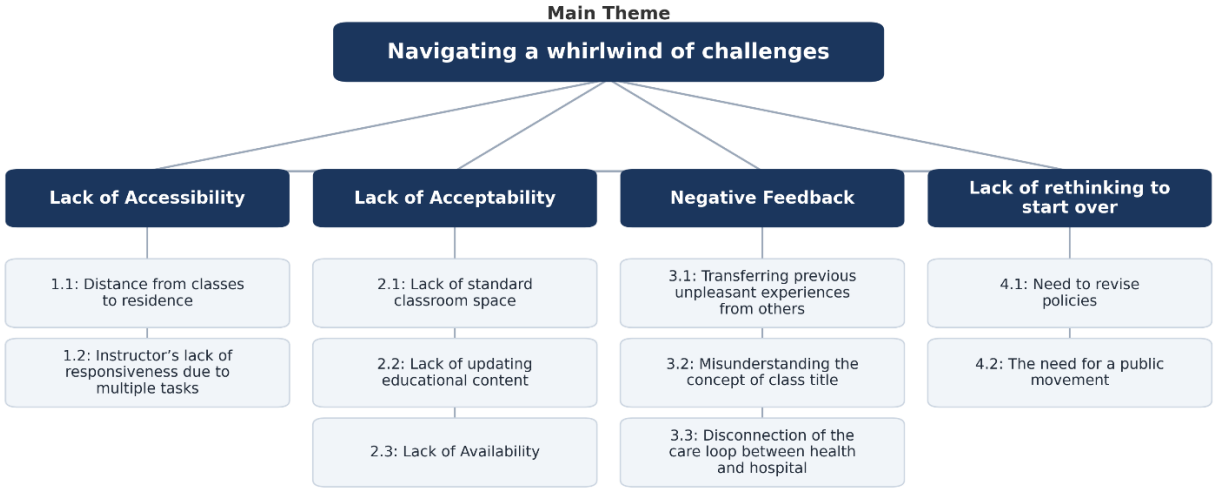
At the macro level, regarding the need for a public movement, participants advocated for an overarching national public campaign involving mass media, urban advertising, and multi-sectoral collaboration to de-stigmatize natural birth and normalize childbirth education among spouses and families. One participant explained:

"*Solving this problem is not just up to me, the instructor. Everyone has to want it, the organization has to want it, the community, the family, and the national media have to want it. There needs to be a tool or a bottleneck to force mothers to attend classes. Even though these classes are free, it doesn't matter to the mothers. They should give us an extra amount so that at least we have more motivation or they should lighten other tasks so that we can advertise in cyberspace. Or something should be said in TV advertisements about health during pregnancy so that the attitude of the community, family, and husbands about the wrong thoughts about childbirth preparation classes changes."* (Participant 33)

Table 2. Thematic hierarchy and abstraction process of healthcare providers' perspectives on barriers to prenatal class attendance				
Condensed Meaning Units / Primary Codes	**Sub-Sub-Themes**	**Sub-Theme**	**Theme**	**Main Theme**
• Living in distant villages without transit options • High private taxi costs for multi-session attendance • Inability of working mothers to attend morning shifts • Fatigue during late gestation hindering commute	• Geographic distance from suburban/rural areas to centers • Public transportation deficits and elevated commute costs • Inconvenient scheduling during morning hours for employed mothers	Distance from classes to residence	**Lack of Accessibility**	**Navigating a whirlwind of challenges**
• Instructors simultaneously tasked with vaccination, Pap smear, and classes • Insufficient dedicated time to answer maternal queries • High patient loads resulting in session cancellations • Professional burnout among midwife educators	• Instructor multi-tasking and role conflict • Workload overload and high client volume • Unplanned class cancellations and delays	Instructor's lack of responsiveness due to multiple tasks		
• Small, cramped rooms hindering pelvic floor exercises • Poor air conditioning and lack of privacy for mothers • Lack of exercise mats, gym balls, and comfortable cushions • Shared multi-purpose rooms creating distractions	• Deficient physical and spatial room dimensions • Inadequate climate control and ventilation • Non-ergonomic furniture and absent exercise amenities	Lack of standard classroom space	**Lack of Acceptability**	
• Absence of modern training modalities (e.g., yoga, Pilates • Repetitive, textbook-based slide presentations • Mismatch with contemporary mothers' multimedia preferences • Lack of interactive simulations and audiovisual aids	• Static ministerial curriculum unchanged for 16 years • Monotonous theoretical lecture format • Competitive inferiority compared to modern digital/private media	Lack of updating educational content		
• Absence of dedicated budget for educational campaigns • Deficit in certified midwife trainers in health networks • Lack of weekend or afternoon sessions for working couples • Inadequate provision of supplementary educational brochures	• Shortage of accredited educational centers and trainers • Lack of institutional advertising and promotional funding • Inflexible timing without evening or weekend options	Lack of Availability		
• Family members discouraging attendance by recounting birth pain • Social perception of cesarean as the modern, painless choice	• Transmission of vicarious traumatic birth narratives • Socio-cultural normalization of elective cesarean sections	Transferring previous unpleasant experiences from others	**Negative Feedback**	

• Peer belief that classes fail to diminish labor pain • Stigma and anxiety propagated by peer circles	• Peer-driven skepticism regarding natural pain-relief techniques			
• Perception that attendance mandates natural childbirth • Hesitation of mothers planning elective cesarean sections • Failure to recognize classes as comprehensive "parenthood education" • Private obstetricians discouraging attendance	• Misconception that classes exclusively promote unmedicated vaginal delivery • Ambiguity surrounding the title "Childbirth Preparation" • Exclusion of cesarean, twin, and VBAC candidates	Misunderstanding the concept of class title		
• Labor wards prohibiting ambulation and learned pain-relief positions • Rejection of trained family doulas in hospital delivery rooms • Overcrowded single-person rooms undermining patient privacy • Maternal loss of trust due to contradictory practices	• Discrepancy between health network teachings and labor ward practices • Skepticism among obstetric residents toward physiologic birth • Compromised dignity and refusal of companion (doula) presence	Disconnection of the care loop between health and hospital		
• Uncompensated extra workload imposed on instructors • Rigid administrative performance indicators • Need for dedicated educator job descriptions without clinical dilution • Demand for insurance coverage and flexible specialized sessions	• Absence of financial incentives and career rewards for trainers • Checklist-driven monitoring rather than quality appraisal • Need for role specialization and workload rationalization	Need to revise policies	**Lack of Rethinking to Start Over**	
• Lack of national television educational broadcasting • Low public health literacy regarding the benefits of prenatal classes • Absence of municipal and urban advocacy campaigns • Imperative to sensitize husbands and families toward birth support	• Inadequacy of national mass media and broadcast campaigns • Exclusion of husbands and families from prenatal discourse • Need for inter-sectoral mobilization to normalize natural birth	The need for a public movement		

Figure 1. Thematic hierarchical model illustrating healthcare provider perspectives on barriers to prenatal class attendance



Discussion

The results of our study aimed to explore health provider perspectives on barriers to prenatal class attendance in Iran indicated a main theme of "Navigating a whirlwind of challenges" that emerged from four themes included "Lake of Accessibility", "Lack of Acceptability", "Negative feedback", "Lack of rethinking to start over".

This study consistently found that “lack of accessibility” deterred mothers from attending classes. "Distance from classes to residence" and "Instructor's lack of responsiveness due to multiple tasks" were major obstacles. Accordingly, other studies have also shown that accessibility constraints, particularly distance to classes, inflexible scheduling, lack of childcare, transportation problems, and unresponsive instructors, consistently deterred mothers from attending classes(27, 28). This aligns with Andersen's model, where enabling factors like transport and clinic hours are key to service use(27). A systematic review, for example, confirmed that incompatible class times and lack of childcare frequently prevented attendance(27). Also Boerleider’s study mentions that addressing these logistical barriers with solutions like varied session times, local venues, subsidized transport, or onsite childcare could significantly improve accessibility and attendance, as demonstrated in prenatal care programs(27). Consistent with our study results, Lazar stated that being responsive to the needs of mothers participating in the class requires support from class instructors in terms of workload and time, and richer communication with mothers(29). In short, enhancing pedagogical accessibility and responsiveness could turn negative feedback into positive engagement.

Another of results of this study was “Lack of Acceptability” that emerged from the subtheme of " Lack of standard classroom space" and " Lack of updating educational content" and “Lake of Availability”. In our study, mothers sometimes felt embarrassment or disinterest in standard prenatal content or doubted the value of classes if they had prior birth experience. To improve acceptability, providers suggested adapting content and delivery to community needs. For instance, involving instructors of similar cultural background or providing materials in native languages has been recommended(30) . Such culturally-sensitive and peer-supported approaches may enhance trust and engagement, consistent with broader calls to align antenatal education with participants’ social context(27). Alizadeh's study, relevant to the cultural context and health literacy of Iranian mothers, highlighted the significant role of classroom facilities, educational space, and class content in equipping mothers with essential childbirth knowledge and preparation(31). Accordingly, Wallace noted that standard classes did not meet their informational or emotional needs and prenatal education often fails to incorporate adult-learning principles or women’s expressed preferences(32). In our findings, health providers echoed this criticizing outdated or generic curricula and didactic teaching styles. Previous reviews have similarly found that women value interactive, small-group learning that connects to their circumstances(30). Improving class relevance requires updating curriculum topics and using engaging formats, as recommended by antenatal education guidelines(32).

Another theme of results was “Negative feedback" that emerged from the subtheme of "Transferring previous unpleasant experiences from others” and "Misunderstanding the concept of class title" and

"Disconnection of the care loop between health and hospital". Accordingly, Wallace warns that if mothers are unable to recognize how the content and delivery relate to them, they will be more likely to disengage(32). Consistent with our study, Udenigwe showed that the transmission of negative experiences from others to expectant mothers can lead to fear of childbirth and non-attendance at classes(33). Also Abdollahpour argued that negative experiences from severe maternal complications can undermine the mothering role and positive childbirth memories, potentially causing fear and anxiety in other pregnant women if shared(18, 34).

The very title of the classes can also be psychologically distressing for mothers with tokophobia. Our study revealed a disconnect between health center training and maternity ward/hospital performance, often stemming from insufficient support for midwives' decision-making and specialists' skepticism toward physiological childbirth. This aligns with McDonald's findings that midwife-centered care, with its associated support and guidance, improves outcomes(35).

A key theme was the “Lack of rethinking to start over” and prenatal classes policies and programs and were "stuck" in traditional formats. This stagnation conflicts with modern guidance, which emphasizes tailoring education to community needs and updating practices based on evidence. Wallace findings underscore the importance of adopting adult-learning theory and continuous quality improvement in course design(32). Also, Heaman proposes that modifying the service environment through multidisciplinary teams and community-based programs can mitigate barriers(28). Based on the results of the McNeil study, In practice, health centers and service providers should regularly update course content and delivery methods, incorporating participant feedback and, when necessary, redesigning courses(36).

Strengths and limitations of the study

This study's strengths include its pioneering qualitative exploration of service providers' perspectives on barriers to childbirth preparation class participation in Iran, where such classes are underutilized. Another strength is the large sample size of participants. The study's main limitation was the time-consuming sampling process due to midwives' heavy workloads and limited availability for interviews. This was mitigated through follow-up interviews and rescheduled appointments.

Application of study findings

This study's findings can help health center planners develop targeted interventions to address barriers to maternal participation in prenatal classes. These interventions can be formalized into an operational plan with measurable indicators to track progress toward increased class attendance.

Conclusion

Overcoming the entrenched barriers to prenatal class attendance requires moving beyond simply offering routine sessions toward structurally re-engineering childbirth preparation within the primary healthcare system. The findings demonstrate that navigating this “whirlwind of challenges” demands a multifaceted strategy: ensuring geographic and logistical accessibility, modernizing educational curricula with evidence-based and dynamic modalities, and critically, bridging the structural disconnect between primary care centers and hospital labor wards to uphold respectful maternity care. Translating frontline midwives’ insights into practice necessitates high-level policy reforms, dedicated budget allocation, workload rationalization, and continuous program evaluation. Ultimately, establishing an integrated, acceptable, and supportive educational continuum is vital to empowering pregnant women, de-stigmatizing physiological childbirth, and advancing maternal and neonatal health outcomes.