

# Identifies Current Trends in Vaginal Birth after Cesarean Section in IRAN: A Qualitative Study

## Abstract

**Background:** The growing prevalence of Cesarean Sections (CS), particularly repeated CS, is a major issue in contemporary midwifery. This study seeks to gain a comprehensive understanding of the experiences of pregnant women and specialists with vaginal delivery after CS, as well as the obstacles that may arise. **Materials and Methods:** From March 2020 to May 2021, 10 women, 12 midwives, and 8 obstetricians and obstetricians affiliated with Qom University of Medical Sciences were interviewed to investigate the experiences and challenges associated with Vaginal Birth After Cesarean section (VBAC). We used the content analysis method, and the sampling was purposive. Semi-structured interviews were conducted to collect data, which were then analyzed using qualitative content analysis based on conventional content analysis. **Results:** The results show that subcategories “individual aspects of VBAC” and “family-social aspects of VBAC” formed “positive aspects of VBAC.” Subcategories “self-efficacy” and “decision-making participation” formed the “empowerment for the woman.” Subcategories “technical team challenges” and “woman’s challenges” formed the main category of “upcoming challenges.” **Conclusions:** Positive relationships, choice-making ability, and self-confidence impact a woman’s decision to choose VBAC. Informing women of alternative delivery options after a CS and pursuing their dreams increases the likelihood of successful VBAC.

**Keywords:** *Challenges, content analysis, vaginal birth after cesarean, women’s experiences*

## Introduction

In recent years, there has been an increase in the rate of Cesarean Section (CS), which is now higher than the recommended threshold. However, there is little evidence to support the benefits of CS for both mother and child, and it has been linked to negative consequences.<sup>[1]</sup>

A study of 230,870 women from across the country, conducted between 2019 and 2021, found that the rate of CS has risen from 16.7% in 1998 to 21.5% in 2023.<sup>[2]</sup> This trend is projected to continue, with CS rates expected to reach nearly one-third (29%) of all births by 2030.<sup>[3]</sup> In Iran, systematic reviews have shown that the prevalence of CS is as high as 48%.<sup>[4]</sup>

Recurrent CS is becoming more common in midwifery, with over half of all CS being repeat procedures.<sup>[5]</sup> This trend has been associated with negative outcomes for both mother and child, as well as a significant financial impact on the healthcare

system.<sup>[6]</sup> To address these issues, Vaginal Birth after Cesarean section (VBAC) has been proposed as an alternative to recurrent CS.<sup>[7]</sup> In many communities, VBAC has gained popularity as a means of reducing the risks associated with repeated CS.<sup>[8]</sup>

However, more research is needed to fully support the use of VBAC. This research should focus on the experiences of specialists and pregnant women, as well as evidence-based information on both risks and benefits. It should also take into account the varying outcomes associated with different maternity centers and countries.<sup>[9]</sup>

In 2016, the Ministry of Health, Treatment, and Medical Education in Iran released clinical guidelines for VBAC, in line with international standards.<sup>[10]</sup> Despite the high rates of CS in Iran, the rate of VBAC in 2018 was reported as less than 1%.<sup>[11]</sup> This rate is significantly lower compared to countries like Ireland, Germany, Netherlands, Sweden, and

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Finland, where VBAC rates range from 29% to 55%.<sup>[12]</sup> In Iran, the average rate of CS was 53%.<sup>[13]</sup> Repeat CS accounts for up to one-third of the factors increasing the rate of CS.<sup>[14]</sup> National medical associations are attempting to modify CS rates by the replacement of VBAC.<sup>[15]</sup> The aim of this research is to explore a thorough understanding of women's and obstetrician's experiences with VBAC and the challenges that come with it.

## Materials and Methods

This study aimed to explore the experiences of women and obstetricians regarding VBAC and the challenges they faced during 2020-2021. The study used conventional qualitative content analysis and included 30 participants who were fluent in Persian and willing to participate. The participants consisted of 10 mothers who had undergone CS, 12 midwives, and 8 obstetricians. The study continued until data saturation, and all participants provided written consent before the interview. The data was collected through in-depth, semi-structured individual interviews that were conducted face-to-face and lasted for 30-60 min per interview. The interviews were held in quiet places in hospitals and health centers. Each interview started with the question "Tell me about your experience with VBAC?" and followed up with questions aimed at identifying the challenges and problems faced by VBAC mothers. For midwives and obstetricians, questions focused on why the rate of VBAC is low and what the challenges and issues faced by obstetricians with VBAC are, as well as why obstetricians avoid performing VBAC procedures.

The participants' responses were used to form exploratory questions such as "Can you elaborate on this?" and "What did you mean by that?" The data collected was analyzed using the qualitative method of conventional content analysis and managed with MaxQDA 10 software. To analyze the qualitative data, the method of qualitative content analysis of the conventional content analysis type by Lundman and Graneheim method was used.<sup>[16]</sup> The first step in conventional content analysis is to determine the unit of analysis in the study, which was done by researcher, Z Kh, as follows.

Lundman and Graneheim proposed a series of steps for analyzing interview data. First, the entire interview should be transcribed immediately after conducting it. Next, the entire text should be read to gain a general understanding of its content. After that, meaning units and primary codes should be determined. Similar primary codes should be categorized into more comprehensive categories, and a main theme should be determined.

To study the interviews, the researcher reviewed them several times and wrote them down on paper. By immersing

themselves in the data, they gained a general sense of the text of the interviews. Then, they identified the relationship between the codes and extracted them. The codes were reviewed and entered into the categorization process.

As the analysis process progressed, the titles of the codes were identified directly from within the text. Finally, the themes were categorized into different categories based on similarities and differences. These themes were used to explain the main themes of the interviews.<sup>[16]</sup>

To achieve the study's trustworthiness, the criteria presented by Guba and Lincoln, namely, credibility, dependability, conformability, authenticity, and transferability, were considered and applied.<sup>[17]</sup>

The researcher actively collected and analyzed data, seeking assistance from external supervisors with research experience to ensure the credibility, authenticity, dependability, and conformability of the findings. Transferability was considered.

## Ethical considerations

Before the interview, the researcher explained the purpose of the study to the participants and obtained their written consent. The participants were informed that their participation was voluntary and that they could withdraw at any time. The Qom University of Medical Sciences (IR.MUQ.REC.1398.126) supported this study, and no external funding was provided.

## Results

Participants' characteristics are given in Table 1. Analysis of 30 interviews yielded 152 codes, 23 subcategories, 6 categories, and 3 main categories: "positive aspects of VBAC," "empowerment of women," and "upcoming challenges." These main categories had six subcategories [see Table 2]. Participants' characteristics are given in Table 1.

### Positive aspects of Vaginal Birth After Cesarean section (VBAC)

These main categories were composed of two subcategories: individual aspects and family-social. Mothers consider vaginal birth to be a wonderful gift they can offer their children and themselves. CS is associated with more maternal and neonatal complications than vaginal birth. Mothers are in excellent physical and mental health following a vaginal birth. Additionally, VBAC provides the advantage of shorter recovery time for the mother, which is, in turn, beneficial for both the mother and the family.

### Individual aspects of Vaginal Birth After Cesarean section (VBAC)

During participant interviews, "individual aspects" emerged as a subcategory with four sub-sub-categories: less maternal and neonatal complications, improved health, the spiritual

**Table 1: Characteristics of the woman participants, obstetricians, and midwives**

Age	Work experience (years) & Education	Job
30	High school diploma	Homemaker
25	Bachelor degree	Homemaker
31	High school diploma	Homemaker
38	Junior high school education	Homemaker
28	Bachelor degree	Homemaker
39	Post-diploma	Employee
29	Post-diploma	Employee
32	Bachelor degree	Employee
35	Junior high school education	Homemaker
35	Bachelor degree	Employee
39	15	Midwife
38	10	Midwife
30	6	Midwife
37	10	Midwife
45	20	Midwife
48	22	Midwife
30	6	Midwife
42	17	Midwife
30	6	Midwife
45	20	Midwife
36	15	Midwife
44	19	Midwife
35	5	Obstetrician
34	5	Obstetrician
38	8	Obstetrician
40	10	Obstetrician
45	15	Obstetrician
43	12	Obstetrician
40	10	Obstetrician
38	6	Obstetrician

significance of vaginal birth, and prioritizing motherhood emotions.

**Less maternal and neonatal complications**

Generally, it is indicated that VBAC constitutes a safe method of delivery and is considered necessary for pregnant women who have at least one CS.<sup>[18]</sup> Several participants emphasized that vaginal birth has far fewer complications than CS. *“I had less pain and bleeding with a vaginal birth after a CS, and my child was also in good health”* (Mother #5).

**Optimal physical and spiritual aspects**

Most of the participants recognized the physical and psychological advantages of VBAC. According to the mothers, VBAC is the preferred option for women without any medical reasons for CS. The spiritual benefits of vaginal birth were also acknowledged as one of its advantages. *“After my first birth, I was very annoyed. I couldn’t even hold my baby. It was impossible to breastfeed him. CS has lots of complications”* (Mother #10).

*By vaginal birth, I feel closer to God. I feel like I have shed my sins in pain and it’s like I’m born again”* (Mother #1 and #2).

**Motherhood feeling**

Mothers often believe that the pain they go through during labor provides them with an authentic and satisfying experience of motherhood. Furthermore, evidence suggests that VBAC can bring about emotional benefits, such as improved bonding, greater birth satisfaction, a sense of maternal empowerment, and overall emotional well-being. *“Childbirth is painful, and the pain is unbearable. However, this pain cannot be compared to the pleasure you will experience. “It’s surely exhausting. But there are no words to describe how happy and satisfied you get once your child is born “* (Mother #4).

**Family-social aspects**

Sub-categories in this category include low-cost, faster recovery, faster family reunion, and a family dimension, all of which will be discussed in depth.

**Lower cost**

VBAC is economically beneficial for both the family and the community. *“A vaginal birth at this hospital is free, but a CS costs me a lot”*(Mother #8).

**Faster recovery, a quick return to the family**

According to the professionals, vaginal birth leads to a quicker physical recovery, enabling women to resume their daily activities sooner. Furthermore, most of the participants concurred that opting for a VBAC could reduce the duration of hospital stay. *“The length of hospital stay is shorter in a vaginal birth, and getting back to daily activities happens much faster”* (Obstetrician #23).

*“After a vaginal birth, I could return to my daily life and care for my baby very quickly”* (Mother #6).

**Ideal family size**

Almost all mothers who have given birth agree that having an ideal family size is important. However, CS may lead to reduced fertility, which is becoming a growing concern since the rates of CS continue to rise. There is a possible adverse association between CS and subsequent fertility.<sup>[19]</sup> *“My sister had two children, and she was told by her doctor that having another child could be dangerous and complicated for her because she already had two CS. My husband and I both want a big family, so we decided to have a vaginal birth”* (Mother #9).

**Empowerment for the woman**

Clinicians reported that natural childbirth empowers women. This study identifies self-efficacy and decision-making participation as subcategories of empowerment.

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**Table 2: Sub subcategory divisions, subcategories, and main categories of study**

Sub-sub-category	Subcategory	Main Category
1.1.1. Less maternal and neonatal complications	1.1. Individual aspects of VBAC*	1. Positive aspects of VBAC
1.1.2 Optimal physical and spiritual aspects		
1.1.3. Motherhood feeling		
1.2.1. Lower cost	1.2. Family-social aspects of VBAC	
1.2.2 Faster recovery, a quick return to the family		
1.2.3 Ideal family size		
2.1.1. Perceived ability	2.1. Self-efficacy	2. Empowerment of women
2.1.2. Risk-taking		
2.1.3. Social persuasion		
2.1.4. Active childbirth	2.2. Decision-making participation	
2.2.1. Common approach		
2.2.2. The right to choose		
2.2.3. Informed choice	3.1. Technical challenges	3. Upcoming challenges
1.3.1. Lack of legal protections		
1.3.2. Lack of adequate facilities and equipment		
1.3.3. It is stressful and time-consuming	3.2. Women' challenges	
1.3.4. Inadequate payment		
2.3.1. Fear of complications		
2.3.2. Fear of failure	3.2. Women' challenges	
2.3.3. Insufficient information		
2.3.4. Inappropriate behavior		

\*Vaginal Birth After Cesarean section

### Self-efficacy

Participants also mentioned that perceived ability, risk-taking, cultural perspectives on VBAC, and active birth all played a role in their self-efficacy. Women's attitudes toward childbearing were also shaped by their level of self-confidence and belief in their ability to give birth. It was observed that all women who had a vaginal birth exhibited a sense of confidence and self-efficacy.

### Perceived ability

Some mothers stated that after the CS that they experienced in their first birth. Now, according to what the obstetrician told them, they have realized that they can give vaginal birth and they want to have their second birth as a vaginal birth. *"I insisted on having a CS for my first delivery. But things went differently in my second delivery. I am grateful to my doctor, who suggested me to have a vaginal birth and will that I became confident that I could do it"* (Mother #2).

### Risk-taking

The mother's and the professional's willingness to take risks contributes to the possibility of VBAC. The professionals may be influenced by an "against-VBAC" culture in the hospital, which may influence them to only present risks involved with VBAC. *"Given the potential risks and lack of legal protection, young and inexperienced doctors are less likely to encourage mothers to have a VBAC. The vast majority of VBACs are carried*

*out by specialists with a history of high-risk behavior"* (Obstetrician # 29).

*"My doctor explained all the possible risks of VBAC. But my choice was to have a vaginal birth"* (Mother #7).

### Cultural perspectives on VBAC

Changes in maternal characteristics and professional practice styles, increasing malpractice pressure, as well as organizational, social, and cultural factors have an impact. *"My husband and his family want a vaginal birth for me. We are Lur and vaginal birth is a cultural value for a woman"* (Mother #14).

### Active birth

Participants in the present study stated that active birth and a sense of control over their bodies were important factors in developing self-efficacy and autonomy in the birth process. Control over the birth experience was of great value to them, and vaginal birth increases their future self-efficacy and self-esteem. *"In a vaginal birth, you feel in control of your body and can be active. But during a cesarean, you have no control or activity. Giving birth feels like conquering a mountain, and your self-esteem rises"* (Mother #7).

### Decision-making participation

The study has shown that women should be given the freedom to choose their preferred method of childbirth and opt for a vaginal birth if they wish to. When women are involved in the decision-making process, it boosts their

self-confidence and trust in their healthcare providers. It also helps them to have advocacy skills and allows them to have a say in interventions. By participating in the decision-making process, women feel more in control, which is highly valued. Among the three sub-subcategories of a common approach, right to choose, and informed choice, participants emphasized this section more than others, which we will discuss in detail.

### Common approach

Clinicians need a common approach to increase the VBAC rate, and obstetricians should make the final decision on the mode of birth. Participants emphasized that the decision to have a VBAC is a two-way street between the clinicians and the mother. *"Doctors and health center staff can play an important role in informing mothers and providing them with the right information to help them make the right decision about a VBAC"* (Obstetrician #28).

### The right to choose

Many obstetricians and midwives believe that the informed choice of birth is met with the rights of mothers; therefore, providing comprehensive advice on this informed choice is the undeniable duty of the healthcare workers. *"In any case, every mother has the right to choose how to give birth after a CS"* (Midwife #21).

### Informed Choice

The majority of participants in the study agreed that women who are fully informed about the risks and alternatives to CS are more likely to request VBAC at their request. *"After being aware of the possible side effects of accepting or rejecting this delivery method by mothers, accepting or rejecting a VBAC can be very helpful"* (Midwife #15).

### Upcoming challenges

Furthermore, another main category of this study was the upcoming challenges. The main category includes the subcategories "technical challenges" and "women's challenges," which we will discuss in more detail.

### Technical challenges

Sub-categories include a lack of legal protection, inadequate facilities and equipment, a stressful and time-consuming work environment, and insufficient compensation.

### Lack of legal protections

Participants stated that legal accountability, inadequate legal protection for obstetricians, and a lack of transparency in their responsibilities are major barriers to performing VBAC, making it difficult for Iranian mothers to access VBAC. *"I was the only doctor in this hospital who performed a vaginal birth after a CS. During one of my operations, I had a ruptured uterus. The hospital's chief warned me that I no longer had the authority to perform a CS delivery"* (Obstetrician #26).

### Lack of adequate facilities and equipment

Mothers who are interested in having VBAC may face difficulties due to a lack of facilities and equipment. Studies have shown that many medical centers do not have enough resident physicians or VBAC-compliant doctors to provide recommendations to mothers who have had a cesarean. This can result in healthcare providers not offering VBAC as an option, even if the mother is interested. *"Our pregnant mother was about to have a CS when she developed a ruptured uterus. Because she was not diagnosed in time, she required an intensive care unit, but the hospital did not have an ICU, and the mother died"* (Midwife #17).

### It is stressful and time-consuming

Most obstetricians and midwives believe that labor in mothers who have had a CS is highly stressful and laborious. *"Because we can't induce labor, the labor of mothers who want to have a VBAC is prolonged. And it's very stressful because of potential complications like a uterine rupture"* (Midwife #11).

### Inadequate payment

Obstetricians and midwives have pointed out that performing VBAC is a much more time-consuming and stressful process than opting for CS. Additionally, VBAC puts them under immense psychological pressure as they are always worried about potential complications for mothers. They need to be with the mother for hours and control her; however, no organization provides more financial support for the hard work of VBAC than performing a CS. *"Every stressful VBAC stresses me out, and I worry that it will not result in complications. I may be at a mother's side for hours at a time, but I am not financially supported"* (Midwife #12).

### Women's challenges

VBAC can be difficult due to lack of knowledge, concerns about complications, and negative experiences with medical staff. Being informed and educated can improve the chances of success. Specific difficulties include fear of consequences, failure, lack of information, and medical staff misconduct.

### Fear of complications

Fear and traumatic past experiences can prevent mothers from choosing VBAC due to concerns about risks, such as heavy bleeding, ruptured uteruses, and infant mortality. *"The most serious concern that I had about trying a vaginal birth after a cesarean was the possibility of uterine rupture"* (Mother #5).

*"During my son's birth, I worried that he would become retarded if he became stuck in the birth canal and didn't get enough oxygen to his brain"* (Mother #10).

### Fear of failure

Participants stated that they are concerned about the failure

of VBAC and they said that they are afraid to endure the pain of birth for a long time, but in the end, they will not be able to give VBAC and will be forced to perform a repeated cesarean delivery. *"I was scared of going through labor pains, not being able to give birth, and having to have a cesarean again"* (Mother #8).

### Insufficient information

Mothers believed that doctors and midwives should provide adequate and accurate information about VBAC, whereas mothers typically receive inaccurate and insufficient information through informal means. *"When you understand the issues and complications of cesarean delivery and the benefits of vaginal birth, it's easy to see that vaginal birth is the best choice. But I was also given the wrong information in my first childbirth"* (Mother #1).

### Inappropriate behavior

During labor, one challenge was the mother's misconduct, which resulted in her losing control over the decisions made regarding her care. A strong relationship between a woman and her healthcare provider is exemplified by mutual respect and support, and is fostered through consistent attention throughout the course of pregnancy and delivery. *"They treated me badly during delivery, and no matter how many times I asked about my condition, they never answered. They examined me every hour, and when I objected, they said, "How much do you ask"* (Mother #6).

### Discussion

Our study investigates women and obstetricians' experiences of VBAC and the challenges ahead. Positive aspects include empowerment, but challenges remain. Consistent with the metacentric study, Lundgren *et al.*<sup>[9]</sup> reported that vaginal birth provided more emotional and psychological contact with the infant than CS.<sup>[20]</sup> VBAC contributes to the health and well-being of the mother and her child, and it facilitates the transition to motherhood,<sup>[9]</sup> lower rates of maternal and neonatal mortality and morbidity,<sup>[9,21]</sup> faster recovery,<sup>[20,22]</sup> and lack of disruption of family life.<sup>[9]</sup>

The empowerment of women was another main category of this study. In line with the current study, most women described vaginal birth as empowering.<sup>[9]</sup> Successful vaginal birth requires a strong sense of self-confidence and self-efficacy, which includes managing pain and challenges during childbirth. Factors affecting a woman's self-efficacy include perceived capability, willingness to take risks, and cultural attitudes toward VBAC and active birth.<sup>[23]</sup>

Empowering mothers means giving them the right to choose their preferred method of delivery, including vaginal birth. This involvement in decision-making increases their confidence in themselves and their caregivers.<sup>[9]</sup> The research examines challenges faced by technical teams, including inadequate facilities, stressful VBAC, non-payment of adequate salary, and lack of legal protection.

Legal issues surrounding VBAC have greatly impacted physicians' actions, leading them to opt for CS instead. Studies show that legal protections can affect the rate of VBAC.<sup>[22]</sup> The findings of a review study also revealed that the most significant obstacles to VBAC in Iran are imposed policies, a lack of access to specialized services, inefficiency in the incentive system, modeling in CS, the central physician in performing VBAC, obstetricians' fear of legal responsibilities, and a lack of legal protection.<sup>[24]</sup>

Mothers who had a C-section struggle to receive VBAC recommendations due to a lack of facilities and supportive physicians.<sup>[25]</sup> Obstetricians prefer C-sections due to liability, convenience, and shorter stays despite no significant compensation.<sup>[26]</sup> Women fear complications, lack information, and face negative interactions when attempting VBAC. Empowering them with accurate information and support can help them succeed.<sup>[27]</sup>

Women have had negative experiences with healthcare professionals who fail to respect their delivery priorities and provide adequate support.<sup>[28]</sup> A woman's relationship with her healthcare provider is strengthened through continued care during pregnancy and childbirth.<sup>[29]</sup> This study emphasizes the importance of respectful and supportive care from healthcare providers toward pregnant and delivering women.

### Conclusion

VBAC is a complex decision influenced by multiple factors, such as medical, psychological, social, cultural, personal, and practical considerations. It requires careful evaluation of the opinions of both women and healthcare professionals on the use of CS.

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### Conflicts of interest

Nothing to declare.

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