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A Qualitative Inquiry to Explore Why Women with Previous Cesarean-Section Do Not Choose Vaginal Birth after Cesarean

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ABSTRACT

Background & aim: The complications of cesarean section (CS) are greater than vaginal delivery in most cases and will be increased in repeat cesarean section. Therefore, women are not keen to choose vaginal birth after cesarean section (VBAC). The present study was conducted to explore why women with previous cesarean section do not choose VBAC.

Methods: This qualitative content analysis was performed on 13 women with previous cesarean section as well as 12 health care providers, who were selected from Om-Albanin hospital in Mashhad, Iran. Data was collected through semi-structured individual interviews and two focus group with women and health care providers. The interviews were recorded, transcribed and analyzed using Graneheim and Lundman's conventional method of content analysis (2004). The trustworthiness of data was verified by Lincoln and Guba's criteria.

Results: The main category of "feeling of loneliness, inability and fear of VBAC" was emerged from three sub-categories including "non-supportive sociological perspectives", "inefficient care" and "psychological fear of childbirth".

Conclusion: The mothers had conflict in choosing VBAC due to emotional, social, and care system issues. Therefore, comprehensive supports including cultural interventions for vaginal birth in order to correct women's beliefs and enhance their knowledge as well as planning a supportive and special care system for women with previous CS will help them in decision making for VBAC. Planning for these strategies and evaluating their effectiveness are suggested.

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Introduction

High CS rates in recent decades and childbearing-based population policies put women at risk of repeat CS. In fact, CS accounts for about half of all birth in Iran(1), two thirds of that are repeat CS (2). Many studies have reported CS as the first indication for repeat CS in the last two decades in Iran (3-5). According to the National Health Service (NHS), alternative interventions to reduce CS rate should focus on three clinical areas: management of the first-time pregnancies and deliveries, access to VBAC, and management of elective CS. Accordingly, one aspect of optimal care is to promote VBAC and provide accurate information about its benefits and risks (6). The international guidelines consider VBAC as a safe and recommended alternative for repeat CS (7). Women with successful VBAC are not confronted with potential complications associated with a repeat CS; these complications include bleeding, infection, bladder injury, or abnormal placental implantation in the future pregnancies. They benefit from earlier mother-child relationship, earlier recovery, and earlier

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breastfeeding (8). Previous research showed no significant difference between women with VBAC and those who had a repeat CS in terms of the risk of maternal complications (9, 10). While VBAC rate in the United States was 13.3% in 2018 (11), the rate of VBAC in Iran was very low (0.8% in 2018) (12), considering that neither women has opportunity to select it nor health care providers introduce it to the repeat CS women. Studies have referred to the unawareness of the possibility of performing VBAC (13-15), lack of emotional and psychological support for women (13, 15), inaccessibility of VBAC-supportive environments (15), fear of labor pain(16) and inaccessibility of adequate analgesia (17) as the barriers to choose this alternative by women.

Since there is a dearth of research on VBAC in Iran, and considering that the interventions to its promotion in the community requires identifying the reasons for its refusal by women with previous CS, this study was, therefore, performed to explore why women with previous CS do not choose vaginal delivery after cesarean.

Materials and Methods

This qualitative content analysis was conducted with conventional approach to explore the causes of not choosing VBAC by women with previous cesarean section. In conventional content analysis, researcher allows the categories and subcategories to emerge from the text data so that follows the tenets of naturalistic paradigm (18). Research participants consisted of women with previous cesarean section (N=13) both in pregnancy and postpartum period as well as 12 Healthcare provider including obstetricians (N=5) and midwives (N=7) in different maternity care settings in Mashhad, Iran from April to October 2018 (Table 1, 2). Considering the maximum variation strategy, participants were included in the study using purposive sampling from health centers and hospitals until data saturation was achieved. Data were collected through individual semi-structured interviews and two focus group sessions (one with mothers those who had VBAC and another with health care providers). By targeting to gain data with more depth and richness, some participants were interviewed twice. The interviews began with this topic: "why do the mothers not choose VBAC?" "What obstacles did you experience to choose VBAC? "Tell me about your experiences with health care providers when you want to make decision for your mode of delivery" and probing questions such as "tell me more about that", "what was the situation?" and "what eventually happened?" Individual interviews lasted approximately 30-90 minutes and were conducted after obtaining the informed consent. One focus group session was organized for nine mothers with VBAC experience and another was held with attendance of nine maternal healthcare providers that were interviewed individually as well, to complete the information, verify the validity of collected data and provide feedback on the results of interviews at Om-Albanin hospital. The interviewer and the facilitator provided detail notes of each interview immediately after the sessions of focus group. The focus groups and all individual interviews were audio-taped and transcribed verbatim. Each interview was regarded as a unit of analysis and analyzed according to Graneheim & Lundman method (2004) (19). Each unit of analysis was divided into meaning units that were n condensed. The condensed meaning units were abstracted and labelled with a code. Finally, nine subcategories and three categories emerged.

Various aspects of trustworthiness were considered by the concepts of credibility, dependability, confirmability and transferability (18). Choosing participants with various characteristics contributed to a richer perspective of the phenomena under study (source triangulation). In addition, analyzing data from one interview at a time and its checking by another researcher of the research team, verified its accuracy (peer check). Also, two members of research team (the first and last author) jointly coded and categorized the codes into subcategories and categories until consensus was obtained. Conducting two focus group sessions provided an open dialogue within the research team and opportunity for reflection of data to a number of participants (member check). Ethical considerations included obtaining informed consent from participants, anonymous recording of the interviews, secrecy about their experiences and freedom to withdraw from the study whenever

they want. Ethical approval for this study was obtained from local research ethics committee, under code of IR.MUMS.REC.1395.139.

Results

The analysis of data resulted in the emergence of an overarching theme titled: "loneliness, inability and fear of choosing VBAC", which explains the reasons for avoiding VBAC in three main categories and nine subcategories. The main categories included "non-supportive sociological perspectives", "inefficient care" and "psychological fear of childbirth" (Table 3).

Table 1. Characteristics of mothers

Number	Participant	Age	Education	Time since last delivery	Previous NVD	Occupation	Cause of previous CS
1	Mother	38	Bachelor	2 years	No	Employee	Arrest of descent
2	Mother	35	Diploma	2 hours	Yes	Housewife	Multiple pregnancy
3	Mother	29	Master	Pregnant	No	Employee	Decreased fetal movement
4	Mother	30	High school	3 years	No	Housewife	Arrest of dilation
5	Mother	36	Primary school	8 hours	Yes	Housewife	Nonreactive NST
6	Mother	28	High school	5 years	No	Housewife	Mother's request
7	Mother	34	Illiterate	Pregnant	No	Housewife	Breech presentation
8	Mother	29	Primary school	1 hours	No	Housewife	Arrest of descent
9	Mother	28	Bachelor	7 month	No	Employee	Mother's request
10	Mother	24	Diploma	4 month	NA*	Housewife	Physician's opinion
11	Mother	33	High school	Pregnant	Yes	Housewife	Postdate pregnancy
12	Mother	21	Diploma	Pregnant	No	Housewife	Mother's request
13	Mother	34	Diploma	6 month	No	Housewife	Oligo Hydramnious

*NA= Not applicable

Table 2. Characteristics of health care providers

Number	Position	Age	Education	Work experience(y)	Work place
1	Midwife	33	Master	11 years	Labor ward
2	Midwife	51	Bachelor	24 years	Labor ward
3	Midwife	47	Bachelor	20 years	Labor ward
4	Midwife	50	Bachelor	29 years	Health center
5	Physician	53	MD in Obstetrics & Gynecology	28 years	Department of Obstetrics & Gynecology
6	Midwife	49	Master	23 years	Health center
7	Physician	40	MD in Obstetrics & Gynecology	5 years	Department of Obstetrics & Gynecology
8	Midwife	39	Bachelor	15 years	Health center
9	Physician	42	MD in sObstetrics & Gynecology	10 years	Department of Obstetrics & Gynecology
10	Physician	36	& Gynecology MD in obstetrics	3 years	Department of Obstetrics & Gynecology
11	Midwife	37	Bachelor	11 years	Health center
12	Physician	46	MD in obstetrics & Gynecology	20 years	Department of Obstetrics & Gynecology

Non-supportive sociological perspectives

Non-supportive sociological perspectives refer to the social barriers such as beliefs, impressions, negative feelings, and misconceptions about VBAC that influenced women's viewpoints. Additionally, the attitude

Table 3. The Process of developing the main category

Code	Sub-category	Category	Theme
Belief in birth personnel incompetency Belief in negative impact of childbirth on sexual function Higher social class in cesarean section Once a cesarean, always a cesarean Ensure the safety of cesarean section Feeling of inefficiency in childbirth Convenience of cesarean Wrong justification for intervening in TOLAC	Opposite social beliefs in vaginal birth after cesarean	Non-supportive sociological perspectives	
Spouse's disagreement with childbirth High prevalence of cesarean section in the community Family culture opposed to childbirth cultural misconception of mothers about childbirth	Non-supportive community		
Inadequate emotional support during labor Lack of preparation for VBAC in pregnancy Restriction of mobility during labor Do not use pain relief methods Lack of access to supportive physician	Inadequate provision of optimal care		
Lack of knowledge False information Considering repeat cesarean as an indication for cesarean section Unawareness of safe interval for VBAC Unawareness about the right to doula attendance Unawareness of childbirth preparation classes	Inadequate knowledge and awareness		
Imposing the mode of delivery on the mother of VBAC with doubt Acceptance Satisfaction for VBAC under the influence of a doctor Accepting the doctor's decision Leaving the choice of delivery to the doctor Instability in decision making Imposing the mode of delivery on the mother Mother acceptance influenced by the general atmosphere of society	Weakness in decision self-efficacy	Inefficient care	Loneliness, inability and fear of vaginal birth after cesarean
Defects in justifying mothers by health providers Unprepared for childbirth recommended by a doctor Inadequate advice on cesarean section complications Unscientific counseling with the mother for VBAC Contradiction between academic and non-academic physician consultation Lack of counseling on the mode of delivery	Weakness in effective counseling		
Experience of dystocia Dissatisfaction with privacy during natural childbirth Experience the failure of Labor Discomfort from repeated examinations in labor	Negative experiences of vaginal birth		
Worry about baby health Indoctrination of danger by birth team Imagination of death during childbirth following consent Lack of mental readiness at the time of admission Fear of complications during childbirth	Feeling of danger	Psychological fear of childbirth	
Fear of labor pains Fear of natural childbirth Fear of VBAC complication Fear of tear during the second stage Fear of episiotomy	Fear of physical harms		

and culture of the society, related to spouse and friends, relatives and even the community, affected choosing VBAC. The category of non-supportive sociological perspectives emerged from two subcategories of "opposite social beliefs in VBAC" and "non-supportive community".

The subcategory of" opposite social beliefs in VBAC" was one of the barriers of choosing VBAC by the mothers. Women's beliefs about the comfort and convenience of cesarean section, negative beliefs toward obstetrician's skills, negative attitude toward the impact of vaginal delivery on sexual function, considering CS as an option in higher social class of the society, the idea of "one a cesarean, always a cesarean", and the mother's perception of CS as a safe delivery, as well as belief toward their inability to do vaginal delivery, and a misconception about care without intervention in VBAC lead them to refuse choosing VBAC. A 38-year-old mother with a history of previous failed vaginal delivery says:

"I always wanted to have a vaginal delivery, I advised it everyone, but when it happened to me, I said no, I was wrong, none of them(obstetricians) understand, they cannot tell you if you can or not, when they cannot, It is better to have a CS section right from the beginning ... ".

Mothers seeking CS felt that they are not able to undergo vaginal delivery. An obstetrician with 24 years of work experience said:

"When the mother had a previous CS in the past, she believes that she could not give birth, and the main problem with VBAC occurs when CS is repeated, and this belief becomes stronger..."

The mother's relatives, including her spouse, family, friends, and even the medical staff, which were the mother's reference in many cases, affected her attitude about VBAC. Spouse's beliefs against VBAC for various reasons, high rates of CS and repeat CS in the society, family recommendation to repeat CS, and the prevailing childbirth culture in the family were among the barriers for choosing VBAC. A 21-year-old mother with a history of elective CS says:

"I would like to have a vaginal delivery, but my mother and all the women in our family say: 'you're crazy if you want to have a vaginal delivery, you had a CS once, it's dangerous ... My mother say: I come with you to the gynecologist to see if she recommends vaginal delivery to you. She took me to the gynecologist... The gynecologist said: "You had a CS, your uterus will rupture!

An obstetrician of the health system with 15 years of work experience, referring to the role of people affecting the mother's choice of delivery, says:

"Those who belong to a higher socio-cultural class, refer to the gynecologists, I mean their new generation, and say which one of them has had a vaginal delivery? Or the gynecologists who specialize in any field or even the general practitioners say which one of them had a vaginal delivery? The mother says:" Why the educated people choose CS, if there is a scientific problem with it... "

Inefficient care

"Inefficient care" was another barrier for choosing VBAC. Many mothers did not prefer a vaginal delivery due to poor care. They preferred to choose a repeat CS due to the lack of necessary psychological support for vaginal delivery applicants at admission, lack of effective pain reduction methods which they heard from various sources, and unavailability of a gynecologist who confidently support them to choose VBAC. An obstetrician of the health center with 20 years of work experience states:

"I tell them that you can have a vaginal delivery. They say that our gynecologist does not accept it, which means that there are only a few gynecologists who are willing to assume the responsibility of doing VBAC..."

Not paying attention of the health care system to the facilities that encourage VBAC, such as wireless monitoring device as well as not using appropriate pain relief methods could affect mothers' decisions. For example, mothers had an unpleasant experience with a vaginal delivery because they were immobile for a long time during labor, especially during VBAC that continuous monitoring restricts their movement. A 36-year-old housewife mother in her fourth pregnancy says:

"Since I had a previous CS, they didn't let me walk and move because the monitoring device was always attached to me, to hear the baby's heartbeat, it was so hard, you couldn't move yourself! ..."

Participants stated that mothers have no self-efficacy to decide for VBAC. They believed that health care system does not involve mothers in making decisions on birth plan. They also commented that most of the time, the gynecologist decides for the mother and the mothers will accept their decisions. A 28-year-old mother with the second pregnancy says:

"... The gynecologist says the last word, because the patient accepts her words the most. She visits her gynecologist every month, and then she accepts her recommendations. When she advises her, she accepts it easily, I think the gynecologist plays the most effective role... "

A 36-year-old mother with third pregnancy said:

"... I said I want to have a CS, they said go up to the maternity ward in the upstairs, the gynecologist will advise if needed..."

Another dimension of inefficient care was inadequate knowledge and awareness of mothers, families and society about the choice of mode of delivery. Mothers did not have necessary knowledge and information about CS complications, especially repeat CS. An associate professor of obstetrics and gynecology with 24 years of work experience says:

"We have to educate mothers, prepare pamphlets, and hold training classes. We can give enough audio-visual information even through radio and television. Because when the information is given through the public media or even newspapers, women and even their spouses and parents are informed about this process, and it will be thus very influential in mother's decision ..."

"Weakness in effective counseling" was also another barrier for choosing VBAC. Mothers were either not consulted or not adequately justified regarding VBAC. A 29-year-old mother with second pregnancy says:

"I had never heard about VBAC. I didn't know that it is possible to undergo VBAC. The gynecologist said that I would come for CS last night. When I came here, they said: Your name is not in the CS list. We would only admit the vaginal delivery applicants. We will do CS when the cervix does not open until the morning..."

In some cases, the mother encountered contradictions during the counseling process, which confused the mother in accepting such counseling. A 36-year-old mother with fourth pregnancy says:

"... I went to the gynecologist and she said: you should have a CS because you had a CS not more than 4 years ago. Therefore, the sutures may rupture during a vaginal delivery. We came to the hospital and they said you should have a vaginal delivery! ..."

Psychological fear of childbirth

Psychological fear of childbirth was another concept for choosing and deciding vaginal delivery among women with previous CS. This concept was emerged from data analysis and consisted of subcategories such as "negative experiences of vaginal delivery", "feeling of danger" and "fear of physical harm", which were among the barriers of choosing VBAC. With regard to the category of negative experiences of vaginal delivery, mothers avoided vaginal delivery and preferred CS either due to previous experience of difficult labor or a failed labor because of enduring associated pain as well as dissatisfaction with labor care environment including lack of privacy or frequent examinations. A 38-year-old mother with a previous CS who was an obstetrician with experience of a failed labor says:

"... given the horrible experience I had, I didn't want to have a vaginal delivery. I had totally a bad impression regarding vaginal delivery, the obstetrician! even the hospital itself, although it was a private one! ..."

Mothers felt dangers and threats associated with the health of their fetus when choosing VBAC. Many of them felt more threatened by their health when medical staff asked them or their husband to sign informed consent for hospital admission. Sometimes, inappropriate counseling by service providers inspired VBAC risk more than it is, and this intensified women's sense of danger. A 28-year-old mother with middle school education and second pregnancy says:

"... I went to my obstetrician and she told me about VBAC. When I went to the hospital, I said: I wanted to have normal vaginal delivery. She

asked me a few questions and then said: If you want to have a vaginal delivery, you and your husband must submit your informed consent: If your uterus ruptures or something happens to your baby or we have to remove your uterus, know that we told you in advance. You can give birth but it is associated with these risks, we have to tell you. Now you can decide? "

In relation to the subcategory of "fear of physical harm", fear of labor pain and complications of vaginal delivery, suture pain and rupture in the second stage of labor were the reasons to choose CS that considered as the barriers for choosing VBAC. An obstetrician of the health center with 15 years of work experience says:

"... A total of 90% of CSs occurred due to the mother's fear. It means there may be no problem with a normal vaginal delivery, but it was rather due to a feeling of fear. We can reduce their fear by informing and training birth skills to them..."

A 36-year-old mother with third pregnancy, after experiencing VBAC, says:

"... I thought CS was better. I also said that my sutures may rupture. My belly is big with excess fat. I said that these sutures must not have healed, and they will rupture when undergo any pressure. That is why I was afraid of giving birth normally".

Discussion

Based on the findings of the present study, the theme of “loneliness, inability and fear of choosing VBAC” is a comprehensive theme, which explains why women with previous cesarean section do not choose VBAC. Low rates of VBAC in Iran showed that mothers either do not choose VBAC or do not receive the relevant services if they choose VBAC. Therefore, the present study examined the reasons for not selecting VBAC by mothers with a previous CS using a qualitative approach. The main theme of “loneliness, inability and fear of choosing VBAC”, emerged from three categories of non-supportive sociological perspectives, inefficient care and psychological fear of childbirth, which explains the barriers of choosing VBAC among Iranian society.

Non-supportive sociological perspectives refer to the barriers such as beliefs, impressions, negative feelings, and misconceptions about VBAC. In addition to the personal issues, the attitude and culture of mother’s society, related to spouse and friends, relatives and even the community, affects choosing VBAC. Moreover, any social normalization in choosing repeat CS as well as psychological pressure from others could prevent the mother to choose VBAC. Monroe and colleagues (2017) stated that it is necessary to identify perceived barriers in order to facilitate women's access to planned VBAC (20). Hellerstein et al. (2014) that evaluated the reasons why Chinese women request CS could identify what aspects of labor and delivery are considered as the barriers to do vaginal delivery (21). Also, Arjomandi et al. (2007) referred to the misconceptions about the superiority of CSs including unawareness of its harmful consequences, negative attitude towards vaginal delivery and attributing false rumors and complications to it as the important reasons towards CS in Iran (22). Zarghami et al. (2014) referred to the counseling with other family members and relatives as one of the factors affecting the choice of CS among the mothers (23). Zakeri Hamidi et al. (2015) in a qualitative study in Iran highlighted that women with positive perceptions about CS who prioritized this mode of delivery, considered vaginal delivery as a hurting and fearful experience, while CS as a painless and safe mode of delivery, which maintain the beauty of reproductive organs. One of the important reasons for selecting CS in this group was lack of post-delivery perineal stretching, which occurs in vaginal delivery and possibly influence their sexual satisfaction in the future (24). Latifnejad Roudsari et al. (2015) in an ethnographic study in the north of Iran found that women's cultural beliefs, values and traditions could considerably influence their attitudes as well as their definitions of various modes, and the decisions they make towards mode of delivery (25).

The category of “inefficient care" emerged from the concepts such as inadequate provision of optimal care, inadequate knowledge and awareness, weakness in decision self-efficacy, and weakness in providing effective counseling as the barriers to choose VBAC. In fact, the results referred to the lack of psychological support during labor, lack of support with the decision made by labor staff, inappropriate

clinical care in various fields, lack of knowledge provided in this regard, inability of mothers to choose mode of delivery, absence of effective counseling, and poor care as the barriers to mothers' access to VBAC. Zarghami et al. (2014) reported that the number of mothers who chose to consult a gynecologist and then underwent CS was significantly higher than those who did not seek counseling for mode of delivery. On the other hand, 40% of those who experienced vaginal delivery stated that consultation with a family obstetrician was the most important factor in choosing vaginal delivery (23). Also, Sharghi et al. (2011) referred to gynecologists and then health workers as the greatest source of mother's motivation to abide the abstract norms in both CS and vaginal delivery groups (26); which was consistent with the relevant studies. In the study on 1,318 pregnant women in Canada (2011), the researchers found that most women were not prepared to make decisions about mode of delivery (27). Consistent with this finding, in the study on Iranian population, Firoozi et al. (2020) referred to the passive decision made by mothers as the barriers to choose VBAC (28).

According to the results of the present study, "psychological fear of childbirth" prevented mothers from choosing VBAC for reasons such as "negative experiences of vaginal delivery" as well as "fear" and "feeling of danger" towards VBAC. Experience of difficult labor, failed labor, unpleasant care environment, fear of labor pain, fear of injury to herself and the newborn, as well as the perception of the vaginal delivery complications prevented women from choosing VBAC; other studies have suggested fear of pain (3, 22, 28) and injury to the fetus (22, 26, 29) . Fear of uterine rupture and neonatal morbidity, fear of childbirth complications, fear of emergency CS, and potential request for additional surgeries were considered as the effective barriers to choose VBAC(29).

According to the findings of the present study, a large percentage of mothers who chose repeat CS did not experience vaginal delivery and the aforementioned barriers hindered them from such experience. However, if VBAC is promoted, it will help to overcome these barriers. In the study of Sharghi et al. (2011) on women's evaluation of CS results and attitudes toward delivery methods, they found that women who had more positive evaluation towards CS before the end of pregnancy, they expressed less positive evaluation after delivery (26).

The present study is one of the few studies which examined VBAC among Iranian society and explains why men with previous cesarean section do not choose VBAC. One of limitations of this study was relying on the role of the physician in making decision for mode of delivery by mothers and this hinders women to have active participation in the process of choosing their preferred mode of delivery. Another limitation was physicians' work overload and not spending enough time to take part in the interviews to discuss the issue, although the researcher tried to solve this problem by increasing the diversity of participants as well as scheduling appointments with physicians.

Conclusion

The results can be used by policy makers, managers and health care providers to empower mothers to control their fear and feel of danger through educational courses and counseling sessions as well as pleasing birth. Interventions at the community level are essential and motivate the maternity care providers to support mothers for choosing VBAC. It is also recommended to carry out further interventional studies to investigate the effects of different interventions on choosing VBAC by mothers.

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Conflicts of interest

Authors declared no conflicts of interest.

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