Decision-making for vaginal delivery in the North of Iran: A focused ethnography

Maryam Zakerihamidi, Robab Latifnejad Roudsari, Effat Merghati Khoei, Anoshirvan Kazemnejad

ABSTRACT
Background: Many factors have been mentioned to influence decision-making for different kinds of delivery. Decision-making for vaginal delivery is under the influence of culture, perceptions, beliefs, values, attitudes, personalities, and knowledge. The current study aims at exploring the determinants of decision-making for vaginal delivery in the north of Iran from women's perspective.

Materials and Methods: A focused ethnographic method with purposeful sampling method has been used. Semi-structured interviews and observation were conducted with 12 pregnant women and 10 delivered women, 7 midwives, 7 gynecologists, and 9 non-pregnant women in Tonekabon clinics. Interviews and observations were recorded and transcribed. The accuracy of the extracted codes and themes was confirmed by restoration of the arranged and coded texts to the participants (member check) and by an expert person from outside the study context. Data were analyzed using thematic analysis and MAXqda software.

Results: Five themes were extracted from the data: Economic influencing factors, Cultural values and norms related to normal childbirth, Positive attitudes towards vaginal delivery, Role of important others, and Facilitators of natural birth. Several sub-themes and sub-sub themes also emerged from the data (e.g. safe delivery, forming maternal feelings, painful but tolerable, maternal role facilitator, inexpensive delivery, a process with good outcome and less complications, relief messenger).

Conclusions: Giving enough information about vaginal delivery for pregnant women and their family members, training pregnant women to increase tolerance during labor pain, and modifying expenses can increase economic affordability, positive cultural norms and attitudes about vaginal delivery, proper social support, use of normal delivery facilitators, and direct them toward vaginal delivery.

Key words: Culture, decision-making, focused ethnography, qualitative study, vaginal delivery

INTRODUCTION
Normal vaginal delivery (NVD) is a God’s gift to human reproduction from the very beginning of mankind on earth till now.\(^1\) NVD on term will lead to the best results and it has been one of the goals of USA for the past 25 years,\(^2\) while cesarean without indication, compared with NVD, has a lot of hazardous outcomes for the mother and fetus.\(^3\)

1Department of Midwifery, School of Nursing and Midwifery, Mashhad University of Medical Sciences, Mashhad, Iran, 2Evidence-based Care Research Center, School of Nursing and Midwifery, Mashhad University of Medical Sciences, Mashhad, Iran, 3Iranian National Center of Addiction Studies (INCAS), Tehran University of Medical Sciences, Tehran, Iran, 4Department of Biostatistics, Tarbiat Modares University, Tehran, Iran

Address for correspondence: Dr. Robab Latifnejad Roudsari, Evidence-based Care Research Center, School of Nursing and Midwifery, Mashhad University of Medical Sciences, Mashhad, Iran.
E-mail: latifnejadr@mums.ac.ir
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Generally, decision-making and selection is a subjective process in which all human beings are involved throughout their lives. Selection is done under the influence of culture, perceptions, beliefs, values, attitudes, personalities, and knowledge.\(^4\)

Many factors have been stated to be responsible for selection of different kinds of delivery. One of the most important determining factors is the personal tendency toward a special delivery method which itself is undergone several factors. Previous studies have shown that some effective factors involved in choosing normal delivery are no anxiety for the safety of mother and baby, fast recovery after delivery, and fear of anesthesia.\(^5\)

In recent decades, the rate of cesarean section in the USA has been more than that of other developed countries. It decreased from 1991 to 1996, but again from 1996, this rate increased and reached its highest point (31.1%) in 2006, but from 2008 onward, it started to decrease. Despite all attempts, 25% of women chose normal delivery and only 5% selected cesarean in that year.\(^6\)
Manthata conducted a research in 2008 titled “Studying South African women’s attitude towards delivery methods” and concluded that more than 80% preferred normal delivery.7 Also, a study conducted in Iran in 2008 showed that almost 60% of cesarean sections occurred in public hospitals and 10% in private hospitals.8 Another study in Isfahan in 2002 showed that 57% of pregnant women chose NVD and 43% selected cesarean.9 This proves the strong tendency toward cesarean in the country.

Since none of studies conducted in Iran considered decision-making process for NVD based on cultural phenomenon, there is a need for an investigation and a profound study on the subject in the cultural society of Iran. Because of the researcher’s record of service in Tonekabon’s hospital and health centers and being familiar with the influential cultural factors in choosing normal delivery, conducting this ethnographic study will help discover the meaning of women’s behavior in making decision with regard to normal delivery and giving priority to it. Accordingly, the current study aims at exploring the determinants of decision-making for vaginal delivery in the north of Iran (Tonekabon) from women’s perspective in 2013.

**Materials and Methods**

With regard to the subject of the current research, a focused ethnographic method has been used.

The reasons for women’s tendency for normal delivery have been carefully studied in this method. Ethnography tries to describe beliefs, values, perceptions, and cultural answers to delivery and its effects on selecting normal delivery, and it tries to provide a background for the perception of the cultural meaning of normal delivery and finally prepares effective care techniques based on culture.10

Participants consisting of 22 pregnant women in third trimester and postpartum, 7 midwives, 7 gynecologists, and 9 non-pregnant women from healthcare centers, hospitals, and specialized clinics in Tonekabon, Iran during 2012–2013 were interviewed. Participants included those who were interested in the study and preferred NVD. The criteria for inclusion in the study were: Pregnant women who referred to health care centers and needed prenatal care in third trimester, those who preferred normal delivery, and women who delivered by NVD and were in their postpartum stage. These women were selected among the natives who referred to health care centers and clinics for prenatal care or after delivery care in Tonekabon.

Women with obstetric problems that must be cesarean section were excluded from the study.

The researcher interviewed some midwives and specialists to build complementary data to find the quality of decision-making among pregnant women. These people were among those who were experts in the related field of study and had at least 5 years of experience in educational, research, and treatment activities.

Units of the study were selected based on purposeful sampling method and with maximum variation. In this method of sampling, knowledgeable participants with different viewpoints and characteristics about the subject were selected. The researcher sampled different groups with different numbers of pregnancy cases and deliveries. After introducing herself and expressing the aim of the project, the researcher performed observations and conducted semi-structured interview in a private environment using open questions, with the average time being 1 h for the interview and an hour and a half for the observation.

Three different kinds of observations were used: Descriptive, concentrated, and selective. During the observations, nine items were noticed:11 People, actions, instruments, events, functions, time, goals, physical characteristics of the site, and feelings.

Three different methods of interview with clear goals, ethnographic and explanations were used in this study. The interview was started by gaining participants’ confidence and personal questions were asked about their ages, jobs, and occupations. Then, participants were asked to express decision-making style about NVD. Next, questions were asked based on individual participants’ answers and the interview guideline. The recorded interviews were listened carefully with the interviewees’ permission; then they were transcribed into categories by the researcher as quickly as possible to be presented to the interviewees to check whether they were compatible with what they said.

In qualitative studies, the repetition of previous information or inner data along with the outstanding points is indicative of adequacy volume of the sample. That is, after interviewing 45 participants, no other reason was derived from them for the selection of normal delivery and the quality of decision-making and its preference to others.

First, two primary interviews were performed which were followed by the main interviews. The questions asked were as follows:

- What does NVD mean for you? What are the factors affecting your decision? Why do you prefer NVD? Who else is involved in your decision-making?
In this study, the analysis of the data started simultaneously with the beginning of observations and interviews and it was accomplished with the six-stage thematic analysis (Braun and Clarke 2006) which is as follows:

Stage 1: Getting acquainted with the data
Stage 2: Constructing primary codes
Stage 3: Searching themes
Stage 4: Reviewing themes
Stage 5: Defining and naming themes
Stage 6: Preparing reports.

The following measures were taken for checking the accuracy and stability of the data: Long-term involvement with the participants during data collection, continuous observation, using different methods to collect data including performing interviews, doing observations, using field notes, using literal quotations, using profound descriptions, confirming extract codes and themes by an expert person from outside the study context, confirming the accuracy of codes and theme by restoration of arranged and coded texts to the participants, and searching for opposed evidence.

The study was approved by the ethics committee of Mashhad University of Medical Sciences. Before the study, letter of consent and agreement was obtained from each participant including pregnant women, women who had given birth, non-pregnant women, midwives, gynecologists, and obstetrics. There were all assured that the participation would be voluntary and they could stop participating in the study any time they wanted.

**RESULTS**

The mean age of participants was 25.19 ± 4.68 years. Majority (80%) of them had high school diploma and were housewives (70%). Nearly half (49%) of the women were primiparous. Two-thirds of the women had previous vaginal delivery.

The most important perceived points in making decision for NVD were coded using thematic analysis as major categories which are: Economic determinants, cultural norms and values, positive attitudes about vaginal delivery, social networks and NVD facilitating factors. Several sub-themes and sub-sub themes also emerged from the data (e.g. safe delivery, forming maternal feelings, painful but tolerable, maternal role facilitator, inexpensive delivery, a process with good outcome and less complications, relief messenger, health insurance for mother and baby, a way for perceiving the meaning of becoming a mother).

**Economic influencing factors**

One of the most important factors in decision-making for delivery choice is economic determinants such as tariffs and financial affordability. NVD tariff is a lot lower than cesarean, so it is more economical for pregnant women.

A 27-year-old woman stated:

“It is more economical.”

Another pregnant woman mentioned her only reason for opting NVD as financial problems and that she could not afford all the expenses of cesarean, overt and covert. A 25-year-old woman in her first pregnancy said,

“I had decided to go under cesarean first, but now my husband and I are buying a house, so I have to choose NVD.”

Financial problem is one of the most important factors influencing people’s attitude toward social and cultural issues as well as decision-making for NVD.

One midwife (50 years old with 25 years of service) indicated that the government should support the family. She added that training for reduction of anxiety and family protection is necessary, but not enough; on the other hand, expenses of hospitalization, nutrition, and housing play an important role.

Almost all the participants believed that cesarean is more expensive and only the rich can afford it. Most obstetrics suggest NVD in Tonekabon and do their best to train women in choosing normal delivery except when someone insists on cesarean.

One gynecologist who prefers NVD believes that the reason why pregnant women prefer cesarean is the fear of the pain related to NVD, so she tries to mention the delivery tariffs of the private clinics to encourage pregnant women to turn to NVD.

An obstetrics who is 45 years old and has 12 years of service record said:

“I work in private clinics and when someone refers to me for a cesarean I intentionally ask for an overcharge to help her change her mind. Why should a family spend so much money on cesarean? I think the reason why they choose cesarean is the fear of pain they have towards NVD.”

**Cultural values and norms related to normal childbirth**

One of the most important factors in decision-making for NVD is the kind of views, attitudes, and beliefs that people of a society have toward normal delivery. Some positive or negative anecdotes may have an effect on pregnant women’s decision. Some believe that NVD shows the power and capability of a woman to play the role of a mother while cesarean is a sign of deficiency and weakness.
A 30-year-old midwife with 6 years of experience said, “In my opinion, normal delivery means that one has got the gut to suffer the pain and deliver a very lovely creature.”

Despite the fact that cesarean is in vogue among the young generation now, NVD has preserved its position among the people in Iranian society. Many believed that labor pain tolerance equals being exempted from sins. They also believed that dying while delivering means being martyred for God.

A 34-year-old woman who was in her third pregnancy with second grade high school education said: “People tell me to deliver normally and the reason is that by this, all my sins will be exempted.”

From the point of view of the majority of women, midwives and gynecologists interviewed normal delivery is an event in which the pregnant woman shares with the process of delivery and her identity as a mother is formed by this.

A 36-year-old pregnant woman with qualification of MSc said, “When you embrace your baby, you seem as if God endowed you an angel whom you were the cause for it.”

Another important reason to choose NVD by pregnant women is their beliefs toward its advantages in comparison to cesarean. They counted a lot of advantages some of which will be pointed out. Some participants believed that NVD’s aftermath is trivial in comparison to that of cesarean. On the other hand, it has a lot of advantages including the safety of mother and baby, capability of playing the role as a mother, and no threat to her beauty.

A 27-year-old pregnant woman in her first pregnancy and with a diploma said, “It hasn’t got such aftermath. It is hard though, but it is good for me when I see that all the dirt in my body is removed, and that I can see my baby, and can get up sooner.”

Another pregnant woman believed that quick recovery of mother after NVD would enable her to feed and take care of her baby immediately after delivery and this would lead her to build an emotional and deep relationship with the baby even in its social relationship with others in future.

A 46-year-old woman in her first pregnancy and with BA degree said, “The convalescence period is shorter for NVD, the baby is breast fed sooner, and the deep emotional relationship between mother and child is formed and this will lead the child to have a better social and emotional relationship with the mother and the society.”

Positive attitudes towards vaginal delivery
Many pregnant women and midwives believed that delivery experience of the woman herself or her family is influential on their attitudes and decisions on the type of delivery. So, all interviews showed that among physicians, midwives, and relatives, the relatives played the most important roles in making decision, especially when they had delivery experiences. One midwife claimed this to be due to the lack of experience and information related to NVD.

Many pregnant women selected NVD again because they believed they would recover sooner and could play the role of a mother as soon as possible.

A 29-year-old woman in her second pregnancy and with high school level of education said, “My previous delivery was NVD. I liked it because I could stand on my feet soon. Because of this previous experience, I like to deliver normally.”

Role of important others
Among other factors, relatives’ recommendation sometimes influences the decision of choosing NVD. For instance, one woman herself was not satisfied with this kind of delivery, but she accepted it just because her husband had the inclination for NVD.

A 30-year-old pregnant woman in her second pregnancy and with primary education said, “I accepted NVD because my husband insisted on it.”

Another participant said that she was under the influence of others in making decision and that she herself had no role in this respect.

All the investigation units pointed the importance of midwives’ roles in supporting pregnant women in the pregnancy course. They are always involved in supporting the pregnant women psychologically and provide them with appropriate information about the nature of NVD and cesarean, as well as the merits and disadvantages, while helping them to build confidence in the process of making decision.

A 26-year-old woman in her first pregnancy and with BA degree said, “I decide to deliver normally because I have an acquaintance in the hospital who will help me suffer less.”

Awareness is also an important factor that influences the decision to choose NVD.
Different sources of information were mentioned, including books, media, classes preparing for delivery, training by midwives and physicians, educational brochures, observing cesarean complications, previous experiences of self, and relatives’ recommendations.

Job and education play an important role in choosing NVD. The higher the education or the level of job, the more the chances of choosing NVD would be. For example, midwives, nurses, and physicians tend to choose NVD more than others.

A 45-year-old gynecologist with 10 years of experience said,

“Those who work in hospitals are much more aware of different types of deliveries than others and since they encountered and observed different cases of deliveries and knew their differences, they are more comfortable in choosing NVD.”

**Facilitators of natural birth**

During the interviews, different groups of participants suggested the following items for the reduction of pain and added that they facilitate delivery. Food stuffs like saffron, milk, borage, date, honey, candy, dairy, castor oil, and some special kinds of activities like bathing daily, increasing physical activities, tolerating primary labor pains, carrying heavy things, and walking before delivery would facilitate NVD.

A 32-year-old woman in her second pregnancy with a BA degree and a 28-year-old woman in her first pregnancy who delivered normally and with a diploma said,

“Drink brewed borage with some sweet things or use saffron since it has a substance which causes exhilaration.”

Most women believed that the smaller the fetus, the easier the delivery. So, they went on a special kind of diet: Eating less, drinking more liquids, avoiding fat, eating more fruits. They also increased their physical activities, slept less, and took showers daily.

A local midwife used a special kind of strategy to increase the tolerance. She used Maryam Grip and placed it in water and believed this was effective in decreasing the fear of labor pain and facilitated NVD.

An illiterate 75-year-old local midwife with 15 years of experience said,

“We place Maryam Grip into the water while it is closed and when it opens the baby is born.”

Some participants believed that they would increase the threshold of tolerance by praying, using orison, reading Ayatolkorsi and tying it to their legs. They also believed that considering delivery as being sacred based on their religious beliefs will help them in normal delivery.

A 50-year-old midwife with 22 years of experience holding BS degree said,

“I have seen only some women who tied a few lines of Ayatolkorsi to their legs and believed that this would decrease the labor pain of delivery.”

A pregnant woman in her 1st pregnancy holding a diploma, based on her grandmother’s recommendation, tried to imagine herself in the position of delivery. So, she put herself in the position each day imagining she was delivering.

“I imagine myself in the situation several times. This will be effective because I prepare myself for the real situation,” she said.

A physician also pointed that reality arose from our thoughts, so imagining normal delivery as a pleasant event would lead to it and a pleasant experience from the delivery would remain in one’s mind.

**Discussion**

The results of the study showed that childbirth is a symbol of birth and joy and since delivery pain will lead to a prosperous end, it makes it distinct from other sorts of pain. Tolerating delivery pain is representative of woman’s highest point of power which is effective in building an emotional feeling and relationship between mother and her baby. NVD has a lot of advantages for mother and her newborn, including its role in keeping body health as well as genital system. Some physicians and midwives also indicated some points about the nature of delivery pain while stating the benefits of delivery pain.

It is the women’s perceptions of NVD that help them select it. From their points of view, the nature of pain related to NVD is different from cesarean, that is, labor pain is related to the process of delivery while the pain related to cesarean is because of surgery. They believed that labor pain was intolerable, but short and since it would lead to a pleasant ending, that is, the birth of a child, they considered it delightful. This property of NVD causes the decision toward normal delivery acceptable.

One important factor in choosing the type of delivery is the proportion of tariffs to the financial state of pregnant women. In the study, pregnant women defined NVD as a cheap delivery method and found the low financial state important for the tendency to select normal delivery. Other studies also have shown that those with poor financial
situation and inappropriate insurance coverage tend to opt for NVD.\(^{12,13}\) According to Keeler et al., those with no insurance coverage or those with public insurance coverage selected NVD more in comparison to those with a private insurance.\(^{14}\)

Another factor in selecting NVD is the high awareness of women about the defects of cesarean and the advantages of NVD. The interviewees believed that appropriate training about the nature of deliveries during pregnancy and labor and their merits and demerits, related strategies to increase tolerance, and making them familiar with the delivery room and midwives by presenting educational films could help women change their attitudes and be pushed toward choosing NVD. Valizaea et al. emphasized on the education of the anatomy of body and labor pain and delivery physiology by showing videos related to NVD. They added that training on non-pharmacologic sedative methods necessitates time and emphasized on the training of mothers in health care centers long before delivery.\(^{15}\) Different studies have shown that those with sufficient information about their own situation and different types of deliveries had a more active role in decision-making.\(^{16}\)

_Cultural values and norms related to NVD_ is another main factor in decision-making. NVD holds a very high position in majority of the population because of its specific nature and psychological, social, and economic privileges. In the present study, the participants believed that NVD is a natural phenomenon and considered it as the summit of power and capability of a woman in playing the role of a mother. They stated one of their tendencies towards NVD as the beliefs on the priority of normal delivery for its positive aspects both for mother and for baby. One of the most important advantages of NVD was its lack of interference with matrimonial relations and reduction of sexual satisfaction, that is, capability in playing the role of a wife, which most participants noted, though Gangoor et al. proved that sexual functioning and satisfaction was more under the influence of mental and emotional conception rather than physical factors and would not be influenced by the number or type of delivery.\(^{17}\)

Fenwick et al. stated that NVD would build a more emotional bond between mother and baby, in comparison to cesarean. In their study, women believed that the passage of fetus through the vaginal channel would help the development of its lungs. They also considered NVD as being important in improving the relationship between mother and baby. Another advantage, they pointed out, was that in this kind of delivery, mother and baby’s health, maternal interaction, and function are improved.\(^{18}\) Drug consumption rate, Drug consumption rate,\(^{18,19}\) other interventions like epidural and suggestion would decrease labor, too, and accompany better consequences and are generally safe deliveries.\(^{20}\) Women believe NVD is a natural process and an important event in life. They also consider it a failure in case of being unable to deliver normally.\(^{18,19,21}\)

Another important factor is _positive attitudes about vaginal delivery_. The results from the present study show that one of the most important factors for the pregnant women’s decision to select NVD is the past experience or the experience they receive by observing the outcome of their relatives’ delivery. Satisfaction is a major factor for the repetition of the same kind of delivery, while discontent from the previous experience or observing the aftermaths will lead to its avoidance.

Hodnett showed that delivery experiences in relation to midwives or physicians would be effective in their decision-making.\(^{22}\) Cesarean is an unpleasant experience, especially in emergency cases.\(^{23}\) May be this can somehow justify the positive attitude toward NVD.

Role of important others is another factor in selecting NVD. Usually the husband plays an important role in this respect. Studies in sociology have shown that women are completely dependent upon friends, relatives, television, internet, and recommendations by laymen in decision-making. On the contrary, legal centers like places for delivering services for pregnancy care or classes educating pregnant women have the minimum effects on pregnant women.\(^{24}\) Midwives’ support while delivering is effective in decision-making. In the present study, some participants stated midwives’ support during labor and delivery process as the reason why they chose NVD. According to the participants, midwives can change the attitudes of pregnant women toward NVD by presenting necessary training classes about the nature, advantages, and disadvantages of NVD and cesarean and by showing the process of delivery in video clips, preparing classes for delivery preparation, getting women familiar with delivery rooms and midwives, taking them to wards to observe the patients’ difficulties, and finally using their experiences. Valdostrom and Hodent, in their study, showed that midwives with positive support of NVD, reducing cesarean, and increasing the satisfaction toward NVD and reassuring the pregnant women for normal delivery process would be a great help.\(^{25-27}\) Perry et al. stated that pain during labor is unique and is under the influence of several factors including midwives and other important people.\(^{28}\) The results of Fraser et al.’s research proved that the relationship between midwife and pregnant woman in giving birth is very important since the midwife has an effective role in assuring the pregnant woman in the process of delivery. Culture, religion, and
the record of service are the factors which determine the midwife’s attitude toward labor pain. Therefore, the kind of support and care that they provide during delivery process is based on their beliefs on labor pain and their expectation toward responsive behavior of pregnant women during labor pain.²⁹

Facilitators of natural birth are very important due to their benefits. Nowadays inability to tolerate pain is one reason for choosing cesarean. If training is provided for pregnant women to know how to increase their tolerance for pain and adapt themselves with the pain, they will most probably select NVD. Improving cultural beliefs and attitudes toward the intolerability of labor pain will lead to the continuation of the selection of NVD in future. In the current study, each participant tried to show different methods in shortening the period and adapting to labor pain.

These methods can be counted as resort to God, the sacredness of delivery based on religious insight, relaxation, breathing techniques, imagination technique, concentrating on the safety of fetus during delivery process, a trained person accompanying during the delivery process, using some special food stuffs like saffron and borage, carrying heavy things, walking before delivery, and tolerating pain at home. Phumdoung, in a study titled “Music reduces labor pain and the successive sufferings,” recommended using instrumental music to increase tolerance to pains in active phases.³⁰

Those participants who tended to choose NVD considered labor pain as a natural event as well as pleasure.

In Manthata’s study too, most investigation units found labor pain as a natural process that the mother should pass through.⁷

This study deals only with the Iranian women’s decision with regard to NVD. So, other qualitative researches to explain the quality of making decision and women’s preferences toward cesarean and also the societies’ cultural beliefs to types of delivery are recommended.

**Conclusion**

Adopting careful instructions in management and administration of deliveries will help the process of making decisions for NVD and the recovery of delivery outcomes. According to the results of the current study, controlling the rate of cesarean by giving enough information about different cases of deliveries, their advantages and disadvantages, training the pregnant women to increase tolerance during labor pain and before giving birth, projecting midwives’ roles in supervising during pregnancy period, and modifying expenses can all help in selecting NVD. To change the social and cultural beliefs in favor of NVD, it seems as if positive cultural and social values and beliefs toward the type of delivery should be strengthened in different ways and the present negative beliefs in this respect should be eliminated. Benefiting health schedules, promoting sites for health network, publishing useful books and sources for high schools and universities, presenting the advantages of NVD in classes for family control, and making films presenting NVD as the best way of delivery are all effective in decision-making in the society and in changing women’s beliefs and culture.

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