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# ATTITUDE OF PREGNANT WOMEN IN CHOOSING THE TYPE OF DELIVERY: A QUALITATIVE STUDY

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## ABSTRACT

**Objective:** To find out the attitude of women to the choice of type of delivery

**Methodology:** This qualitative study was conducted from June 2018 to July 2019 in Hamedan university of Medical Sciences. 12 pregnant women participated in this study. Data were analyzed with qualitative content analysis.

**Results:** We extracted two themes including “tendency toward vaginal delivery” with six categories: Lower rate of maternal and neonatal complications, Fear of cesarean section, Positive experiences of relatives, Maternal and neonatal benefits, improved techniques for enhancing the quality, Social and emotional support for mothers and “tendency toward cesarean section delivery” with five categories: Maternal complications of vaginal delivery, Concerns about inappropriate behavior of treatment team, Physical environment and equipment, Negative experiences of relatives, Concerns about different aspects of infant health.

**Conclusion:** Based on the results obtained from the findings of the study, the correct implementation of empowerment programs for maternity wards to reduce maternal and infant complications, improve the quality of maternity preparation classes, implement standard and appropriate pain relief techniques, improve social and psychological support for mothers And promoting respectful behaviors during the treatment of pregnant women with standard physical spaces and sufficient equipment can help pregnant women in choosing the type of delivery.

**Keywords:** Attitude; Vaginal delivery; Cesarean Section.

## INTRODUCTION

Pregnancy and childbirth are natural physiological processes that are considered exciting and important events in the life of every woman and her family.<sup>1</sup> However, there is always a difference of opinions regarding the choice of delivery. One of the most important factors influencing the choice of delivery is the individual tendency towards the method of childbirth, which is influenced by several factors including the desire to experience natural childbirth, satisfactory earlier experiences, lack of concern for mother and child safety, faster recovery after childbirth and fear of anesthesia.<sup>2</sup> Norms and cultural values towards delivery also play a part in the decision-making of natural childbirth. The role of influential people in the family, such as the spouse, is very important in the decision-making process of choosing the method of delivery. Social studies show that friends, relatives, popular advice, and the media play a very influential role in choosing the type of delivery.<sup>3</sup> Demonstrating midwifery skills and professionalism, the ability to use appropriate technologies and maintain calmness, and instilling it in the mother is

also very important in this regard.

Women who give birth naturally consider it as a natural phenomenon and a symbol of a woman's power. Vaginal delivery has numerous benefits, including cost-effectiveness, shorter hospital stays, less risk of infection, and bleeding.<sup>4</sup> Researchers acknowledge that vaginal delivery has a significant effect on maintaining women's physical and reproductive health, lowers physical complications, and leads to a more favorable emotional relationship between mother and infant.<sup>5</sup> However, when vaginal delivery is not safe for a mother or neonate, it is essential to have a cesarean section.<sup>6</sup>

Cesarean section is now regarded as the most common surgical technique, as well as one of the most prevalent midwifery procedures in the world. A cesarean section can save the lives of many mothers and newborns under specific circumstances.<sup>7</sup> The most common cause of the request for cesarean delivery by women worldwide is the fear of childbirth and our community is also facing the challenge in the rate of cesar-

ean delivery requested by mothers. According to studies conducted on child delivery centers in Tehran, 77% of cesarean section deliveries were carried on the mothers' requests or because of the fear of labor pain.<sup>6</sup> An increased incidence of complications of cesarean section in the mother, such as anesthesia, infection, abnormal bleeding during and after childbirth, as well as possible injuries to the baby such as respiratory problems and increased mortality are reported in Iran.<sup>8</sup> The actual rate of cesarean section in many countries is far higher than the rate recommended by the WHO (13-15%). For example, the rate of cesarean section in Iran is 53-63% which is very high as compared to the global standard rate.<sup>9</sup> According to a report published by the World Health Organization (WHO), cesarean section accounted for 40% of all deliveries in Iran, while it was predicted to account for only 13%.<sup>10</sup>

The process of choosing the type of delivery is one of the most important factors affecting women's health. Although numerous interventions have been conducted in the delivery preparation classes to promote the culture of vaginal delivery, there has been no desirable rate of increase in vaginal delivery. Since, Qualitative research has unique abilities to reflect the thinking, beliefs, and attitudes of people, and analyze their experiences in depth.<sup>11</sup> The findings of this research can provide a good insight into the reasons in identifying the potential barriers related to a specific type of childbirth and therefore this study aimed to investigate the reasons for a tendency toward cesarean section or vaginal birth in the city of Hamedan Medical University.

## ■ METHODOLOGY

This qualitative study was conducted from June 2018 to July 2019 at the Comprehensive Health Clinic of Hamedan University of Medical Sciences and the study was approved by the ethics review board

of the university [Grant No, (IR.UMSHA.REC.1397.179)]. To observe ethical considerations, all participants were first explained about the purpose and method of the study. After the agreement, an informed consent form was obtained to participate in the study and they were given the necessary assurance that the information and audio files would remain anonymous and confidential.

All consenting pregnant women aged 15-45 years, in the gestational age of 30 weeks who have not received psychological counseling before enrolling in the study, and have attended childbirth preparation classes to prepare them for prenatal, antenatal, and postpartum care were included in the study. The exclusion criteria included the occurrence of preterm delivery and medical problems during the study and would be determined by participants. Semi-structured interviews were used to collect data.<sup>12</sup> Sampling continued until a complete understanding of the phenomenon was studied. The interview guide questions were as follows:

What is your view on the type of delivery?

What kind of delivery do you want to have at the moment?

What are the factors influencing your choice of delivery?

If the interviewees did not give enough explanations, more questions were asked to identify more details. All interviews were recorded with the permission of the participants and each interview session lasted about 30 to 45 minutes. After each session, the recorded version of the interviews was carefully transcribed on paper after listening several times. Data collection continued until information saturation was achieved. This means that in the interviews, new information was no longer provided by the participant.<sup>13</sup> Finally, 12 people participated in the study. The data were analyzed according to the method proposed by Graneheim and Lundman, based on the five steps for analyzing qualitative data.<sup>14</sup>

ing qualitative data.<sup>14</sup>

The written texts were read several times and the initial codes were extracted. After that, the related primary codes were merged. Based on the similarities, they formed classes, and finally, the themes were formed. In this way, the concepts hidden in the data were extracted. Data analysis was performed using MAXQDA-10 software. In this study, four aspects that included the accuracy and reliability of the data, the criteria of validity, verifiability, and reliability were used to examine the rigor of the study.<sup>15</sup> After compiling the initial codes, the participant's confirmation was ensured for the correctness of the codes and interpretations, and if the codes contradicted the participants' opinions, corrections were made. The control method was used by two faculty members and experts in the field of qualitative research and agreement was made on the selected codes and classification.

## ■ RESULTS

In this study, 12 pregnant women with a gestational age of 30 weeks and above were interviewed. According to the results, the social and economic status of the participants was at a moderate to high level (Table 1). After the initial coding, 489 primary codes were extracted. Then based on the similarities between the primary codes, the main codes were named. At this stage, 91 main codes were obtained. Similar main codes were merged and 22 subcategories were obtained. The process of merging and classifying continued, and the main categories and themes were formed. Finally, the codes and qualitative results were summarized into 11 categories and 2 themes (Table 2). Out of these two themes, the theme of Tendency to vaginal delivery consisted of 6 categories i.e., 1) Lower rate of maternal and neonatal complications in vaginal delivery; 2) Fear of cesarean section; 3) Positive experiences of relatives and other people in the community;

4) Maternal and neonatal benefits of vaginal delivery; 5) Improved techniques for enhancing the quality of vaginal delivery services, and 6) Social and emotional support for mothers.

The category of a lower rate of maternal and neonatal complications in vaginal delivery consisted of two subcategories, i.e., reduction of maternal complications and reduction of neonatal complications. Most of the participants preferred vaginal delivery due to the expected low level of maternal and neonatal complications. Their description of the choice is as follows,

*"Generally, I want a vaginal delivery because I think it is a physiological process with fewer complications and with a shorter recovery time. Overall, I think it is better. I am tall and my mother had a history of normal birth record; considering the mentioned parameters, I think vaginal delivery is a better choice".* (P-1, a 26 year old gravida III)

*"The Cesarean delivery has more side effects as compared with normal delivery. The Ampoule that is injected affects the brain, body, and backbone. However, normal birth is carried out under its pressure... I'm scared to have a baby who does not take breast milk. Breastfeeding is important for me. My sister-in-law had a cesarean section and everyone said that her baby did not take breast milk because she had a cesarean, and now the baby is weak and thin".* (P-2, a 21-year-old primigravida)

The reduction of neonatal complications in vaginal delivery: Many participants stated the low incidence of neonatal complications as a reason for preferring vaginal delivery over cesarean delivery *"I know that when a baby comes out of the vaginal canal, the pressure pushes out the amniotic fluid eaten by the baby. Hence, the baby has a more normal condition than those born in a cesarean section".* (P-12, a 26 year old primigravida)

The Category of Fear of cesarean section consisted of two subcategories, including fear of anesthesia for cesarean section and complications of cesarean surgery. The participants described their view as follows,

*"Fear of repeating cesarean delivery and anesthesia during the Cesarean section is usually during the second and third delivery. The complications of anesthesia are another problem that can result in headache and backache".* (P-4, 26 years old gravida II)

*"Fear of complications of cesarean surgery includes the problems with lactation and postpartum hemorrhage because it is a kind of surgery. I'm afraid of surgery because several layers of my belly are torn".* (P-3, 32 years old primigravida)

The category of Positive experiences of relatives and other people of vaginal delivery in the community consisted of two subcategories, i.e., positive experiences of previous deliveries and spouse's positive experiences of childbirth. The narrative of the participants regarding these two subcategories, respectively, is as follows

*"It's great to use the experiences of other women. We had the chance to speak with some of the pregnant women who are experiencing their second or third childbirth. It is a very good experience and helps to change one's opinion".* (P-3, 32 years old primigravida).

*"A patient doesn't know whether to choose the cesarean section or vaginal delivery. However, since the sister of my husband had a good experience of vaginal delivery, my husband suggested vaginal delivery, though I think that cesarean section is more convenient".* (P-4, 26 years old gravida II).

The Category of Maternal and neonatal benefits of vaginal delivery consisted of two subcategories, i.e., Emotional link between

mother and neonate and more appropriate breastfeeding. The participants described that

*"Vaginal delivery helps to accelerate the relationship between mother and child and patients can have more successful breastfeeding. In cesarean section, a mother may have a lot of pain and may prevent such a link, while in vaginal delivery it occurs more quickly".* (P-5, 26 years old gravida III)

*"The pregnant women can have more successful breastfeeding after vaginal delivery and the relationship between mother and child may form sooner. In cesarean section, the mother may experience more pain that can prevent such a link, while in vaginal delivery it occurs more quickly." (P-6, 23 years old primigravida)*

*"In case of cesarean section, breast milk is secreted more lately, and mother is not conscious enough to breastfeed properly".* (P-4, 26 years old gravida II).

The category of Improved techniques for enhancing the quality of vaginal delivery services consisted of three subcategories, i.e., Improvements in labor pain relief techniques, childbirth preparation classes, and improvements in private spaces and equipment used for vaginal delivery. The participants opined the following,

*"There are now new ways of easing the pain introduced".* (P-4, 26 years old gravida II)

*"A patient underwent spinal anesthesia and she was very satisfied. She said that her delivery finished sooner... Also. the childbirth preparation classes are great. They teach a lot of good things. I'm attending the classes both here and in the health center and I am very satisfied... Last year, I accompanied my sister-in-law and attended a delivery room in one of the neighboring cities, and it was very*

beautiful. Her husband was allowed to accompany her, and my sister-in-law was very pleased. However, it is not the same here". (P-6, 23 years old primigravida)

"Both I and my husband attend these classes, and the information presented there helped us a lot". (P-2, 21 years old gravida II).

"Well, thank goodness, the conditions are better now and we hope to have an easier delivery. Delivery rooms and care services are better than before". (P-3, 32 years old primigravida).

The last category of theme 1 was Social and emotional support for mothers and it consisted of two subcategories, i.e., Increased level of publicity and more respectful services for pregnant women. The participants told that;

"It is very good policy to promote normal delivery everywhere. I had referred for a visit and there I received a card to attend the classes". (P-4, 26 years old gravida II).

"It is necessary to advertise more in the health centers for everyone, for husbands, for families. I visited here and became familiar with these classes. It was not much advertised in health centers". (P-6, 23 years old primigravida).

"The behavior at health services has improved a lot. They let the mother have an accompanying midwife that helps a lot... I was very stressed out two nights ago when I was referred to the emergency room, but a physician was there who helped and counseled me a lot". (P-3, 32 years old primigravida).

The second theme, "Tendency to cesarean delivery" consisted of 5 categories, i.e., 1) Maternal complications of vaginal delivery; 2) Concerns about inappropriate behavior of treatment team; 3) Physical environment

and equipment; 4) Negative experiences of relatives and other people in the community, and 5) Concerns about different aspects of infant health.

The category of Maternal complications of vaginal delivery consisted of two subcategories, i.e., Complications of vaginal delivery and Pain of vaginal delivery. The Complications of vaginal delivery were considered too fearsome by the participants.

"I am scared that something bad will happen to my baby". (P-7, 34 years old gravida II).

"My husband is not in favor of vaginal delivery. He has heard something bad from people around? [What has he heard?] Being torn and other similar things. [Do you mean the genital area?] Yeah, I'm afraid to become ugly". (P-8 25 years old primigravida)

"The Pain of vaginal delivery is too much and the situation is kind of more dreadful". (P-4, 26 years old gravida II).

"People are more afraid of stitches and pain". (P-9, 27 years old primigravida).

The category of Concerns about inappropriate behavior of the treatment team in vaginal delivery consisted of two subcategories, i.e., Lack of respect for pregnant women and not respecting the privacy of mothers. The participants described that,

"The staff described that they are not afraid of troubles in hospitals but they do not like to hear the shouts and screams of delivering women". (P-4, 26 years old gravida II).

"I don't want to have a delivery in front of others. Once, I was hospitalized for preterm delivery, I did not like the idea of having no privacy". (P-10 28 years old primigravida ).

The category of Physical environment

and equipment consisted of a subcategory, i.e, Timeworn equipment. One of the participants expressed her concern that

"They say one thing in the class, but when we are referred there, we see something different. Our neighbor's daughter was having a delivery and they did not have a tool to stop bleeding". (P-7, 34 years old gravida II).

The category of Negative experiences of relatives and other people of vaginal birth in the community consisted of a subcategory, i.e., Mothers' negative view toward the repeat of bad experiences for their daughters. The participants described that

"My mother doesn't want me to have a vaginal delivery, because she had delivered with a lot of difficulties". (P-4, 26 years old gravida II)

The category of Concerns about different aspects of infant health in vaginal birth consisted of two subcategories, i.e., Lack of personnel and equipment for neonatal care and Concerns about infant physical health. The participants expressed their concern as follows,

"I'm afraid of vaginal delivery because my baby may not get enough oxygen and they may not know what to do... I always pray that nothing bad happens to my baby. I am afraid of bad events happening to my baby and students, who deal with us, do not know what to do during my vaginal delivery". (P-10, 28 years old Primigravida)

"My previous baby died before the age of forty days. Although I have no problem with vaginal delivery, I am worried about the safety of my baby. Some women said that their babies were blocked in the vaginal canal and couldn't breathe, so I'm scared". (P-11, 34 years old gravida III.)

Table 1: Demographics of participants in the qualitative research

Participant	Tendency to normal vaginal delivery	Age	Education	Employment status	Pregnancy age	Gravida	Number of miscarriages	History of attending child-birth preparation classes	Prenatal care
1	-	26	Bachelor	Employed	34	2	0	-	+
2	+	23	Bachelor	Housewife	32	1	0	-	+
3	+	26	Diploma	Housewife	38	1	0	+	+
4	-	34	Bachelor	Employed	33	2	0	+	+
5	-	28	Bachelor	Employed	30	1	0	+	+
6	-	27	Diploma	Housewife	32	1	0	+	+
7	+	26	Bachelor	Housewife	30	2	1	-	+
8	-	25	Bachelor	Employed	38	1	0	-	+
9	-	30	Bachelor	Housewife	32	1	0	-	+
10	+	26	Primary school	Employed	30	3	1	-	+
11	+	32	Diploma	Housewife	30	1	0	+	+
12	+	21	Bachelor	Housewife	31	2	0	+	+

+: presence, -: absence

Table 2: Subcategories, categories, and themes obtained in the qualitative part of the study

Theme	Main categories	Subcategories
Tendency to normal vaginal delivery	Lower rate of maternal and neonatal complications in normal vaginal delivery	Reduction of maternal complications in normal vaginal delivery
		Reduction of neonatal complications in normal vaginal delivery
	Fear of cesarean section	Fear of repeating cesarean delivery and anesthesia
		Fear of complications of cesarean surgery
	Positive experiences of relatives and other people of vaginal delivery in community	Positive experiences of previous deliveries
		Spouse's positive experiences of childbirth
	Maternal and neonatal benefits of normal vaginal delivery	More appropriate breastfeeding
		Emotional link between mother and neonate
	Improved techniques for enhancing the quality of vaginal delivery services	Improvements in labor pain relief techniques
		Childbirth preparation classes
Improvements in private spaces and equipment used for normal vaginal delivery		
Social and emotional support for mothers in vaginal delivery	Increased level of publicity	
	More respectful services for pregnant women	
Tendency to cesarean section delivery	Maternal complications of normal vaginal delivery	Complications of normal vaginal delivery
		Pain of normal vaginal delivery
	Concerns about inappropriate behavior of treatment team in vaginal delivery	Lack of respect for pregnant women by medical staff in vaginal delivery
		Lack of respect for pregnant women during in vaginal delivery
	Physical environment and equipment	Timeworn equipment
	Negative experiences of relatives and other people of vaginal delivery in community	Mothers' negative view toward the repeat of bad experiences for their daughters in vaginal birth
	Concerns about different aspects of infant health in vaginal delivery	Lack of personnel and equipment for neonatal care in vaginal birth ward
		Concerns about infant physical health in vaginal birth

## ■ DISCUSSION

In this study, pregnant women's attitude toward choosing the type of delivery was classified into two themes, namely a tendency toward vaginal delivery and a tendency toward cesarean section delivery. Similar to our study, it was found in another study that children of women with a vaginal delivery benefit greatly from more favorable skin contact, are more likely to breastfeed better than other women, and have a higher cardiovascular respiratory stability for neonates.<sup>16</sup> Although researchers believe that cesarean section can prevent maternal and perinatal mortality, it also can result in short-term and long-term risks that can affect a mother and baby for many years beyond the current birth, affect the health of women and children, and have an impact on subsequent pregnancies.<sup>17</sup>

Rafiei et al conducted a meta-analysis and investigated the prevalence of cesarean section and its causes in Iran; the results showed that the average frequency of maternal complications such as muscle pain, headache, fever, and infection was higher in women undergoing cesarean section than in women with a vaginal delivery. The results of this study also showed that abnormal bleeding was more prevalent in vaginal delivery, while urinary incontinence was more common in the cesarean section group. In addition, muscle pain (45.1%) and headache (41%) were the most common complications of cesarean section for mothers. Furthermore, the mean hospital stay was 1.65 days for the vaginal delivery group and 3.3 days for the cesarean section group.<sup>18</sup> Somewhat similar concerns have been shared by the participants in our study.

A qualitative study by Long et al in 2018 showed the complexity and variety of women's experiences and their effects on making decisions and found that women's charac-

teristics (age, height, behavior), internal concerns (deep fear of pain), priorities (child safety, perineal protection), relationship with others, and the exchange of everyday information about births in the community (family, friends, celebrities, popular culture, the internet) had influenced the personal preferences of women in choosing the type of delivery.<sup>19</sup> These findings are similar to the narratives given by the participants in our study.

Based on the statements of the participants of our study, the positive impact of prenatal education classes, communication with service providers, beauty and tranquility of private delivery rooms, and the possibility of the presence of an accompany were among the factors that reduced the negative views of pregnant women toward the health system, reduced the false beliefs of mothers, and enhanced their positive attitude toward vaginal delivery. These information sources highlight the importance and the power of communication between women and health care providers.<sup>20</sup> Munabi-Babigumira et al highlighted the role of skills, attitudes, and behavior of treatment team in an efficient work environment on the quality of care provided to mothers and infants, and noted that in the absence of a capable team and sufficient facilities the quality of maternal care would decrease, as it was reported that these issues prevented women to have a vaginal delivery.<sup>21</sup> This is quite similar to the views of participants in our study.

The findings of our study suggest that by increasing education and counseling during pregnancy about choosing the type of delivery, pregnant women will get acquainted with the different stages of childbirth, methods of analgesia, reduction of labor pain, benefits, and problems of vaginal delivery, and cesarean section. This leads to a reduction in anxiety levels, positive mental concepts of pregnant women, and more choice of vaginal delivery in these women.<sup>22</sup> Researchers have

also noted the positive effects of effective delivery of analgesia methods in achieving better results for mothers.<sup>23</sup> The results of Sanders et al's study have also shown that preparing women for birth is an individual and psychological process that depends on understanding women's unique needs and is influenced by differences in cultural, religious, or spiritual contexts.<sup>20</sup> In line with the results of the present study, other studies have proven that a higher level of education, changing spouse's attitude toward protecting women in the delivery room, and providing privacy during delivery plays an important role in enhancing maternal health and have a positive impact on pregnancy outcomes. The results of a study showed that the shortage of equipment, medications, and supplies needed for the maternity ward not only affects mothers but also hurts the ability of maternity care providers to deliver quality services. Other studies have also addressed and highlighted the importance of equitable access to health services, access to empowered personnel, procurement and distribution of adequate equipment and medicines, and the establishment of a financing system to transform health systems into community-approved networks.<sup>24,25</sup> Many studies confirm that mothers' distrust in the agents involved in delivery and fear of labor pain is the most common stressors for women in the delivery room.<sup>24,26</sup> Moosavi et al showed that mothers with increased fear during pregnancy were vulnerable to the risk of the advent of childbirth and increased likelihood of intervention including increased cesarean section, medical and surgical interventions, and neonatal injury.<sup>27</sup>

In addition, men's involvement in emotional, social, and financial supports reduces maternal stress and helps women to feel safe and secure. Such involvement in maternal health issues can ultimately promote better relationships between couples and enhance maternal well-being.<sup>28</sup>

## CONCLUSION

Based on the results from the findings of the study, empowerment programs are needed for maternity wards to reduce maternal and neonatal complications. Improvement in the quality of maternity preparation classes, implementation of standards, application of appropriate pain relief techniques, improvement of social and psychological support for mothers and promotion of respectful behaviours during the treatment of pregnant women can help pregnant women in appropriately choosing the type of delivery.

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#### Author's Contribution

SG designed & collected the data with drafting of the manuscript. SZM designed and reviewed the manuscript. KO collected the data for the manuscript. FK analysed the data with drafting of the manuscript. MRE collected data for the manuscript. Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

#### Conflict of Interest

Authors declared no conflict of interest

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#### Data Sharing Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.