

# Factors Affecting Delivery Preference of Primigravida Women: A Qualitative Study

## Primigravida Gebelerin Doğum Tercihlerini Etkileyen Faktörler: Niteliksel Bir Araştırma

 Filiz SÜZER ÖZKAN,<sup>a</sup>

 Nurdan DEMİRCİ<sup>b</sup>

<sup>a</sup>Department of Nursing,  
Düzce University School of  
Health Sciences,  
Düzce

<sup>b</sup>Department of Nursing,  
Marmara University  
Faculty of Health Sciences,  
İstanbul

Received: 16.08.2017

Received in revised form: 30.01.2018

Accepted: 07.02.2018

Available online: 04.06.2018

Correspondence:

Filiz SÜZER ÖZKAN

Düzce University School of

Health Sciences,

Department of Nursing, Düzce,

TURKEY, TÜRKİYE

filizsuzer@hotmail.com

This work was presented as a poster at the  
3<sup>rd</sup> World Nursing Congress

(09-11 November 2017, Valencia, Spain).

**ABSTRACT Objective:** The objective was to identify factors affecting the pregnancy, pregnancy perception and preference of delivery method of primigravida women, and to evaluate their experiences and satisfaction regarding their deliveries. **Material and Methods:** This is a descriptive study using a qualitative method. The study was carried out at the gynecology and obstetrics department of a university hospital in Turkey. The study group was composed of 14 primigravida women 18-35 years old who had not undergone IVF treatment. All had become pregnant spontaneously and none had a high-risky pregnancy, pregnancy is not risky. Data were collected via semi-structured interviews after which thematic analyses were performed. **Results:** At the end of interviews with pregnant women, three main themes (perception of pregnancy, perception of childbirth and experience of childbirth) and seven subthemes (state of willingness for pregnancy, emotional state during pregnancy, preference of childbirth and affecting factors, fear from childbirth, method and experience of childbirth) were generated. **Conclusion:** As a result of research; it was found that a planned pregnancy affected the attitude towards pregnancy. In addition, feelings of the women towards their pregnancy changed throughout the pregnancy, while their delivery choices did not change; most wanted vaginal deliveries since they believed it was healthier. All of the pregnant women were afraid of delivery and this fear of childbirth affected the preference of delivery.

**Keywords:** Pregnancy; delivery; delivery preference; nursing; qualitative study

**ÖZET Amaç:** Çalışmanın amacı Primigravida gebelerin gebelik, doğum algısı, doğum yöntemi tercihlerini etkileyen faktörler, doğumlarına ilişkin deneyimleri ve memnuniyetlerini belirlemek. **Gereç ve Yöntemler:** Araştırma niteliksel yöntemin kullanıldığı tanımlayıcı bir çalışmadır. Araştırma, Türkiye’de bir üniversite hastanesinin Kadın Hastalıkları ve Doğum Polikliniğinde yapılmıştır. İVF tedavisi görmeyen/kendiliğinden gebe kalan, 18-35 yaş aralığında, gebeliği riskli olmayan 14 primigravida çalışma grubunu oluşturmuştur. Veriler, yarı yapılandırılmış görüşmelerle toplanmış ve tematik analiz gerçekleştirilmiştir. **Bulgular:** Gebeler ile yapılan görüşmeler sonucunda üç ana tema (gebelik algısı, doğum algısı ve doğum deneyimi), yedi alt tema (gebeliğin istenme durumu, gebelikteki duygusal durum, doğum tercihi ve etkileyen faktörler, doğum korkusu, doğum yöntemi ve doğum deneyimi) ortaya çıkmıştır. **Sonuç:** Araştırma sonucunda; gebeliğin planlı olmasının gebeliğe ilişkin duyguları etkilediği, gebelik ile ilgili duyguların gebelik süresince değiştiği, gebelerin çoğunun daha sağlıklı olduğunu düşündükleri için vajinal doğum istediği ve gebelik boyunca tercihlerinin değişmediği, gebelerin tümünün doğumdan korktuğu ve doğum korkusunun doğum tercihini etkilediği bulunmuştur.

**Anahtar Kelimeler:** Gebelik; doğum; doğum tercihi; hemşirelik; kalitatif çalışma

With the developing technology, women who perceive childbirth as a surgical intervention are searching for alternative delivery methods other than vaginal birth. Medical indications as well as social, psychological and environmental factors may affect their choices.<sup>1-4</sup>

The frequency of delivery by cesarean section has increased in Turkey and over the world in recent years. While the cesarean rate indicated by the World Health Organization is 10-15%, this rate was reported as 56% in Brazil, 48% in Iran, 38% in Italy, 33% in Switzerland and the USA, 32% in Australia and Germany, 28% in Canada and 27% in China.<sup>5,6</sup> In Turkey, the percentage of cesarean deliveries was reported to be 53.9% of all deliveries.<sup>7</sup>

Although pregnancy and delivery are physiological events, they are important stress factors for women. Women have concerns about the delivery method in that period. This concern is especially significant in the first delivery and delivery method becomes an important issue to be decided in the pregnancy period. Expectations of childbirth form the basis of delivery method preference. Therefore, it is important to discover the expectations women have of delivery and to determine their preferences of delivery method in order to provide the knowledge, support and care that they need during this period and to include them in the decision-making process.<sup>2,8</sup> In decision making, the role of the nurses who are close to the women during the perinatal period takes on great importance.<sup>3</sup> An examination of the literature revealed that a number of quantitative studies have been carried out to determine factors affecting delivery method preference of pregnant women in Turkey.<sup>2,4,8-10</sup> In these studies, pregnant women were interviewed only once and information on whether their ideas had changed or not and how they delivered was not included. Thus, this study was planned to establish data on the pregnancy, delivery perception and delivery method preference of the women as well as on their childbirth experience and the satisfaction with their delivery, by follow-up of the delivery in detail.

## MATERIAL AND METHODS

This was a descriptive study using a qualitative method in order to obtain detailed information about the pregnancy, delivery perception and delivery method preferences of primigravida women according to the first and third trimesters, and the experiences and degree of satisfaction related to their deliveries.

## SETTING AND SAMPLE

The universe of the study was composed of pregnant women admitted to the obstetrics and gynecology department of a university hospital in Turkey. The sample was determined by using the purposeful sampling methods of criterion sampling (ten pregnant) and the snowball (four pregnant) method. It was planned to reach other pregnant women who shared common features with these pregnant women by using snowball method. Therefore, this study aims to determine differences between women.

Primigravida who were literate, had a single on pregnancy, had not undergone IVF treatment and who became pregnant spontaneously, were between 18-35 years old (pregnant women who are not at risky age), did not have a chronic disease and did not have a high-risk pregnancy were included in the study.

Exclusion criteria included development of a high-risk pregnancy, preterm delivery or withdraw from the interviews.

## ETHICAL CONSIDERATIONS

This study was approved by the university ethical committee. Participants were informed about the aim and content of the study and their written consents were taken before the beginning of the study.

## DATA COLLECTION

Data of the study were generated by the "Sociodemographic Characteristics Question Form" with eight questions for determining the sociodemographic characteristics of the women and the semi-structured "Guide Interview Form", both of which were developed by the researchers.

A Counseling Interview Form was prepared in three separate versions for interviews done at three separate times with pregnant women. These versions were used randomly according to the flow of the interview. The semi-structured form to guide interviews included open-ended questions to identify pregnant "feelings, thoughts, perceptions. In the first and second interviews concerning emotions and thoughts about pregnancy, the pregnant

women were asked whether the pregnancy was planned, how they found out that they were pregnant and their feelings about finding out. They were also asked how their pregnancy was going, and how it felt to be pregnant. To learn their emotions and thoughts about giving birth, they were asked about their feelings when they thought about giving birth, their preferred mode of delivery and their reasons for choosing it. In the third interview, they were asked questions about their birth story, delivery experiences, birth satisfaction and opinions and feelings about delivery.

Upon registration at the polyclinics, the pregnant women completed the Sociodemographic Characteristic Question Form given by the researcher, and an appropriate place and date were planned for the first individual interview. The first qualitative interviews with the 16 gravidae who met the inclusion criteria were conducted in the polyclinics, in their homes and at their workplace.<sup>2,4,10</sup> Upon the request of the participants, all of the second and third qualitative interviews were carried out in their own homes. Care was taken to conduct the interviews in quiet surroundings where the gravida and the interviewer could be alone. The number of participants was determined based on the “data saturation” principle which is valid for qualitative studies.<sup>11</sup> Two women were withdrawn from the study following the second trimester due to preterm delivery and gestational diabetes, and the study was completed with 14 women. A code name was assigned to each gravida who was interviewed and these codes were used instead of their names during the analyses (Table 1).

The aim of each interview was explained and before each new conversation, the subject was reminded of the previous interview. The women were informed about the possible duration of the interview and the reason for the voice recording. The confidentiality of all data obtained from the interview was emphasized and their consents were then taken. The behavior of the women was observed during the interviews and notes were taken. The duration of the interviews varied between 45

to 90 minutes. It was observed that the women were especially more comfortable and expressed themselves better at the postpartum interview. Positive feedback was recorded as the women found the opportunity to follow their own emotional changes during this period and they felt it was a very special moment for them.

## DATA ANALYSIS

Data were assessed by thematic analysis. Each interview was transcribed one-to-one and recorded in the computer by the researcher. The main questions which were included in the Guide Interview Form generated the main themes, and the follow-up questions of the main questions generated the sub-themes. Subjects which were not asked by the researcher during the interviews but were especially mentioned by the women were added as sub-themes. While coding data, statements were read by the researcher again and again, and they were coded and written under the appropriate sub-theme and theme. In addition to the researcher, support was given by two experts from the Sociology department who were experienced in qualitative research, had attended a qualitative research course and had studied the generation of themes and sub-themes, coding data and the placement of codes under sub-themes and themes.

## LIMITATIONS OF THE STUDY

The following conditions formed the limitations of the study: 1) some women did not want to participate in the study since a voice recorder was used at the interviews; 2) pregnant women whose education level was low did not agree to participate in the study; 3) some women were withdrawn from the study due to emerging risks during pregnancy; and 4) gestational weeks varied at the time of the first and third trimester interviews.

## RESULTS

Pregnant women were between 20-33 years old, most of them married between 19-22 years old and graduates of high school and college, and half of them were housewives. The themes and sub-themes which were generated at the end of con-

**TABLE 1:** Individual interview schedules according to gestational status.

Pregnant Patients	Time for individual interviews		
	1st (Gestational age-wks)	2nd (Gestational age-wks)	3rd (Weeks Postpartum)
Gravida A	11 wks	29 wks	6 wks Postpartum
Gravida B	12 wks	30 wks	6 wks Postpartum
Gravida C	13 wks	36 wks	6 wks Postpartum
Gravida D	13 wks	34 wks	5 wks Postpartum
Gravida E	11 wks	35 wks	6 wks Postpartum
<b>Gravida F</b>	<b>12 wks</b>	<b>6 wks - Diagnosis of gestational diabetes resulted in termination of interviews</b>	
Gravida G	13 wks	36 wks	6 wks Postpartum
Gravida H	12 wks	36 wks	5 wks Postpartum
Gravida I	11 wks	36 wks	5 wks Postpartum
<b>Gravida K</b>	<b>8 wks</b>	<b>26 wks - Preterm labor resulted in termination of interviews</b>	
Gravida L	12 wks	34 wks	5 wks Postpartum
Gravida M	13 wks	36 wks	2 wks Postpartum
Gravida N	8 wks	35 wks	4 wks Postpartum
Gravida O	8 wks	32 wks	5 wks Postpartum
Gravida P	12 wks	32 wks	3 wks Postpartum
Gravida R	12 wks	35 wks	2 wks Postpartum

wks: Weeks.

tent analysis of the interviews with the women are given and explained below.

## MAIN AND SUB-THEMES OF THE FIRST INTERVIEW

### 1. Perception of Pregnancy (Main theme)

Pregnancy perception varied based on the pressures to become pregnant. The pregnant women generally expressed complex emotions regarding their pregnancy, and it was observed that they were excited and happy.

**Pressures to become pregnant:** Although the women stated that the pregnancy was a planned/desired pregnancy, eight women stated that they became pregnant mainly because their husbands were very anxious to have a child.

*“My husband was so anxious to have a child that I gave up contraception, but I did not think that I could get pregnant immediately. I only agreed so that he would be happy.”(Gravida A)*

**Emotional state during pregnancy:** While only one woman was scared of the changes that would occur in her body and in her life due to pregnancy,

more than half of the women expressed dissatisfaction because of the nausea and vomiting that emerged during the first three months. Nearly half of the women experienced fear of losing their babies during the first months of their pregnancy.

*“...this vomiting is a very bad thing for me. I’m getting sick, namely, I feel myself to be sick.” (Gravida E)*

*“Some days I feel better when I do not have nausea, but I wonder if something happened to my baby, I am afraid of losing it... Actually, I think I am afraid of losing it at this period, and I am afraid of miscarriage because I see that I have bleeding, and I had a miscarriage in my dreams. I still check my underwear when I go to bathroom, and I pray not to see something like that.” (Gravida L)*

### 2. Delivery Perception (Main Theme)

All the women except two declared that they wanted to have a vaginal delivery since they thought that it was healthier. All of the pregnant women were scared of delivery. Fear of delivery affected their preference of delivery method.

**Preference of delivery:** Only two women said that they definitely wanted to deliver by cesarean

section at the interviews, while the other women said that they wanted a vaginal delivery.

*"I definitely am thinking to undergo cesarean section ... even before I got pregnant, I was saying that if I deliver one day, I would definitely deliver by cesarean section."* (Gravida B)

*"Now I'm brave and I want to have a natural delivery."* (Gravida D)

**Factors affecting preference of delivery:** The factors affecting preference of delivery were revealed as: 1) believing that a vaginal delivery was healthier and a cesarean section was not a delivery method; 2) hearing descriptions of other women who had delivered; 3) watching a vaginal delivery and demanding to undergo vaginal delivery; 4) being beside a woman who had a bad delivery experience; and 5) being told previously by a gynecologist that she was not suitable for natural delivery. Most of the pregnant women wanted a vaginal delivery since they thought that it was healthier. Nearly half of the pregnant women considered a cesarean section to be an operation. In addition, their mothers were found to be especially effective on the preferences of the women.

*"I want to undergo a natural delivery so much ... I fear that I may not establish a bond with my baby if I undergo cesarean section. What if I don't like her/him?"* (Gravida A)

*"I want a natural delivery since it is healthier. A cesarean is ultimately a knife wound."* (Gravida C)

*"A cesarean is not a delivery for me, it is an operation."* (Gravida D)

*"My mother always wants me to undergo natural delivery ... She said that she always had vaginal deliveries and there was no cesarean section before ..."* (Gravida H)

**Fear of delivery:** The pregnant women stated that they were afraid of delivery due to reasons such as feeling pain during delivery, having complications that might damage the baby, being responsible for damage to the child, lying on the delivery table, being unable to successfully give birth, sustaining injury to her body, getting insufficient attention from the healthcare team, scream-

ing during delivery, feeling insecure and dying from the delivery. Except for one woman, all declared that they were greatly afraid of suffering/feeling pain during delivery. Fear of delivery affected the delivery preferences of the pregnant women.

*"...my biggest fear is not being able to push during delivery; in other words, possible damage to the baby because of me."* (Gravida B)

*"What if I cannot accomplish it? I have that fear."* (Gravida O)

*"I'm scared... God forbid!, I may die."* (Gravida R)

## MAIN AND SUB-THEMES OF THE SECOND INTERVIEW

### 1. Perception of Pregnancy (Main theme)

At the second interviews, during the last trimester, most of the gravidae described pregnancy as a very nice feeling and said that they were excited to be making preparations for their babies.

**Emotional state during pregnancy:** While only one gravida was annoyed with the changes associated with the pregnancy, two gravidae expressed satisfaction with these changes. Nearly half of the gravidae said they were scared of having an unhealthy/disabled child or losing their babies.

*"For instance, there is milk coming out of my breasts, and even this makes me excited!"* (Gravida A)

*"... I cannot bend over. I cannot stand up. I experience discomfort. I'm looking in the mirror and my body is changing. I've begun to feel bad."* (Gravida P)

### 2. Delivery Perception (Main Theme)

The gravidae explained their feelings about delivery as being "so excited and extremely scared", and they said that they would like to be with their babies as soon as possible.

**Preference of delivery:** It was determined that delivery preferences of the gravidae had not changed.

*"I still want to undergo natural delivery. My ideas have still not changed. I'm still thinking of C-section because I think it is safer." (Gravida B)*

**Factors affecting preference of delivery:** The gravidae who wanted to have a vaginal delivery believed that it was healthier, that they could recover more easily and that the bond between the mother and child would be better established.

*"...he/she was the reason why I wanted a vaginal delivery. In order to bond closely ... Maybe if I experience that pain and if I suffer so much I may bond more tightly with her/him." (Gravida A)*

**Fear of delivery:** In addition to their statements at the first interview, the gravidae stated that they experienced fear due to reasons such as undergoing vaginal examination, having preterm labor, having complications during delivery, undergoing an emergency cesarean section, staying at hospital and having a lack of information about delivery (inexperience). Except for one, all the gravidae declared that they were extremely scared of suffering/feeling pain during delivery.

*"... During natural birth, she/he can be deprived of oxygen, can be stuck and the cord may be twisted ...I am scared if something happens." (Gravida A)*

*"It is a strange fear...like if a problem arises. For example, if a complication occurs and a cesarean takes the place of a vaginal delivery." (Gravida H)*

## MAIN AND SUB-THEMES OF THE THIRD INTERVIEW

### 1. Delivery experience (Main theme)

The gravidae shared their childbirth experiences and feelings about their delivery methods.

**Implemented delivery method:** Half of the gravidae underwent vaginal delivery and the other half underwent cesarean section (Table 2).

**Delivery experience:** While the gravidae who underwent vaginal delivery viewed their delivery experience as more difficult and unpleasant, the others who underwent cesarean section expressed more positive feelings. One woman who underwent cesarean section made the statement that she did not feel like she had given birth.

*"...I did not feel the episiotomy, but the sutures were very bad...well, I felt the needle going in and out. This made me feel so much pain. I screamed at that step rather than during delivery." (Gravida A)*

*"... Labor pain is very hard. I was so scared. It was more than being scared.... I can say that dying is easier. I would have thrown myself out of the window if I had been alone." (Gravida C)*

*"...I feel like I had an operation, not like I delivered." (Gravida L)*

**Satisfaction with delivery:** Only two women who underwent vaginal delivery were satisfied with their delivery method.

*"... I regret that I had a natural delivery. It is a very primitive method." (Gravida A)*

*"Well, it is a very strange feeling and I think I am lucky I did it naturally." (Gravida G)*

## DISCUSSION

In this study, the mean age of the gravidae was 25 ± 3.2 years, and most had married at the age of 19-22 and were graduates of high school or college. Half of them were housewives. The importance of marriage is generally recognized throughout Turkey and almost all childbirth occurs within marriage. The median age for marriage is 21, and considering the age range of fertility, women in Turkey still tend to deliver at early ages, with 70% of the deliveries occurring in women under the age of 30.<sup>12</sup>

### PREGNANCY PERCEPTION

Although pregnancy and childbirth are accepted as a natural part of life in most cultures, it takes time to adapt to pregnancy. Physical and emotional changes occurring during pregnancy may lead to conditional and developmental crises.<sup>3</sup> In the reproductive health research conducted by the Ministry of Health, women generally described pregnancy as a natural, normal and even blessed period.<sup>13</sup> In this study, it is noteworthy that the pregnancy perceptions of the gravidae changed based on the pressure to become pregnant. In the study by Tekin it was determined that expectations

**TABLE 2:** Birth method choices of pregnant women and delivery methods implemented.

Pregnant Patients	Birth Preferences		Delivery Method Performed & Reason	Delivery Location
	1 <sup>st</sup> Trimester	3 <sup>rd</sup> Trimester		
Gravida A	vaginal delivery	vaginal delivery	vaginal delivery + episiotomy + vacuum	Private Hospital
Gravida B	cesarean section	cesarean section	cesarean section (elective)	Public Hospital
Gravida C	vaginal delivery	vaginal delivery	vaginal delivery + episiotomy	University Hospital
Gravida D	vaginal delivery	vaginal delivery	cesarean section (large baby)	Private Hospitals
Gravida E	cesarean section	cesarean section	cesarean section (elective)	Private Hospital
Gravida G	vaginal delivery	vaginal delivery	vaginal delivery + episiotomy +). induction	University Hospital
Gravida H	vaginal delivery	vaginal delivery	vaginal delivery + episiotomy	University Hospital
Gravida I	vaginal delivery	vaginal delivery	vaginal delivery + episiotomy	University Hospital
Gravida L	vaginal delivery	vaginal delivery	cesarean section (large baby)	Public Hospital
Gravida M	vaginal delivery	vaginal delivery	cesarean section (elective)	University Hospital
Gravida N	vaginal delivery	vaginal delivery	vaginal delivery + episiotomy	University Hospital
Gravida O	vaginal delivery	vaginal delivery	cesarean section (fetal distress)	Private Hospital
Gravida P	vaginal delivery	vaginal delivery	cesarean section (lack of cervical dilatation)	Private Hospital
Gravida R	vaginal delivery	vaginal delivery	vaginal delivery + episiotomy	Public Hospital

from pregnancy were affected positively and significantly when the pregnancy has been planned.<sup>14</sup> It is thought that the condition of having a planned and wanted pregnancy affected the women’s acceptance of the pregnancy and their adaptation to the changes associated with pregnancy.

**Pressures to become pregnant:** Becoming pregnant cannot always be a planned, conscious decision depending on the individual’s will. In almost all societies, there is pressure for women to become pregnant and to assume the role of motherhood. Pressures coming from spouses, peers and family can be influencing factors in the decision to have a child. Thus, the woman herself may decide to become pregnant to make others happy and not because she herself wants to.<sup>3</sup> In this study, although the gravidae stated that the pregnancy was planned/wanted, in later stages of the interview they said they were not ready for pregnancy. Most wanted and agreed to become pregnant in order to make their spouses happy since they wanted it so much.

**Emotional state during pregnancy:** Most of the gravidae were uncomfortable with the changes occurring during the first trimester, while in the last trimester only one gravida said she felt discomfort. In the study by Sözeri et al. was found the ratio of gravida whose nausea-vomiting complaints were

persistent as 19.6%.<sup>15</sup> It was observed that the presence of a baby was accepted more easily with the decrease in pregnancy-associated complaints and especially with the feeling of the movements of the baby after the completion of the first trimester. The interviews within the last trimester revealed that the gravidae had embraced their pregnancy. They had adapted to it and described pregnancy as a very beautiful feeling. During the advanced weeks of pregnancy, the gravidae declared that they felt excited to cuddle their babies as soon as possible and were very eager to make preparations for them. During their pregnancies, half of the gravidae experienced the fear of losing their babies. The first trimester interviews focused on the changes in the women’s own bodies. The growth of the abdomen and feeling the movements of the baby facilitated the acceptance of the reality of the pregnancy and baby. While the women wanted to deliver as soon as possible and felt the excitement of holding their babies, they also experienced intense anxiety of losing or damaging their babies.

**DELIVERY PERCEPTION**

The gravidae accepted delivery via the vaginal route as a natural delivery. Despite interventions such as induction, vacuum application and episiotomy during labor, all deliveries via vaginal

route were considered to be natural deliveries. The process of natural childbirth has its own unique features and is defined as a delivery without any interventions.<sup>1,16</sup> Induction, amniotomy, episiotomy, use of forceps and vacuum are labor interventions, but to what degree are they compliant with the natural concept?<sup>7,16</sup> Any obstetric procedures that are performed to achieve delivery are known as operative deliveries. Operative vaginal approaches are observed in nearly 4% of deliveries. Of all of these, forceps applications make up 3% and vacuum applications 6%.<sup>17</sup> In this study, vacuum extraction was performed on one of the gravida who underwent vaginal delivery, induction was performed on one and all vaginally-delivered gravidae underwent episiotomy. Previous studies have shown that episiotomy is still a routinely performed technique for primipara.<sup>18,19</sup>

**Preference of delivery:** The expectations of delivery form the basis of delivery preference.<sup>3,8</sup>

Güngör et al. have determined that most of the women make their decision about delivery method during the first trimester.<sup>10</sup> Karakuş and Şahin found that 46.2% of the gravidae had decided on the delivery method before the pregnancy.<sup>20</sup> Gözükara and Eroğlu reported that 88.9% and Özkan et al. that 93% of the women did not change their decision on delivery method during the pregnancy.<sup>4,8</sup> In this study, only two gravidae opted to deliver by cesarean section, while the others declared that they preferred to undergo vaginal delivery. These preferences had not changed in the second interviews. A number of studies have shown that many women preferred vaginal delivery.<sup>2,21-25</sup> The delivery preferences of the gravidae did not change during their pregnancies. They had a general opinion about the delivery method before the pregnancy and they preferred the delivery method in line with this conviction.

**Factors affecting preference of delivery:** There are many factors affecting the delivery preferences of women. Pregnant women believe that vaginal delivery is healthier since the mother recovers more quickly following delivery, and she can start breastfeeding and caring for her baby faster and

more easily. In the studies carried out in Turkey, it was found that the main reasons for preferring vaginal delivery were the beliefs that it is healthier and recovery is easier and quicker.<sup>2,4,20,22</sup>

Nearly half of the gravidae stated that they did not consider cesarean section to be a delivery method, but rather an operation. In previous studies also most women defined cesarean section as an operation.<sup>23,26</sup>

The delivery experiences of friends, mothers and close relatives and their ways of expressing them considerably affected the delivery expectations of the gravidae.<sup>27</sup> At the interviews, it was observed that the gravidae were affected in their preferences of delivery by women who had delivered before. Mothers had the most significant role among those who affected the pregnant women. In the study by Gözükara and Eroğlu, it was shown that gravidae were affected the most in their preferences of delivery by their mothers.<sup>8</sup>

In the present study, a gravida who was working as a nurse stated that she had observed a vaginal delivery when she was a student and had been positively affected. The pregnancy of the same gravida was not planned, and during the first period she declared that she could not accept her pregnancy. The belief that with vaginal delivery a stronger bond can be established between the baby and the mother affected the preference for vaginal delivery. Sayıner et al. reported that women preferred vaginal delivery in order to enhance the maternal instinct (10%).<sup>22</sup> Women in Turkey believe that the sense of motherhood can be better experienced and that some gynecological diseases can be avoided by vaginal delivery.<sup>28</sup>

Another factor that affects the preference for delivery method is the question of which delivery method is more beneficial for the health of the baby. Candidate parents accept delivery methods and interventions which they think are more beneficial for the baby.<sup>16</sup> In the study by Tamar women declared that they found caesarian section safer since it was less risky for the baby.<sup>29</sup> In the present study, two women opted for caesarian section because they thought that it was safer compared to

vaginal delivery. The women who believed vaginal delivery to be healthier wanted to undergo vaginal delivery, while those who thought that caesarian section was healthier for their babies preferred childbirth by caesarian section. Those women found caesarian section safer since they were afraid of having an unhealthy or disabled baby due to a problem that might occur during vaginal delivery. Previous studies, have found that most women preferred caesarian section since they thought it was safer for the baby.<sup>4,8,30</sup>

**Fear of delivery:** Fear of delivery affects the preference of delivery in 20% of gravidae.<sup>31</sup> The most important problem created by the fear of delivery is the increase in the demand for cesarean section and the associated ratio of elective cesarean sections performed due to this fear.<sup>32</sup> Tamar and Fenwick et al. indicated that women preferred cesarean section due to their fear of delivery.<sup>29,33</sup> The reasons for fear of delivery vary among women. Uçum et al. stated that more than half of the women in the study experienced fear of delivery during pregnancy.<sup>23</sup> In the present study, all gravidae stated that they were afraid of delivery due to reasons which included feeling pain, having possible damage to the baby, harming the baby during delivery, undergoing vaginal examination, lying on the delivery table, being unable to accomplish the delivery, having preterm labor, having complications during delivery, being subjected to emergency cesarean section, sustaining injury during delivery, getting insufficient attention from healthcare professionals, screaming during labor, staying at hospital, lacking information about delivery (inexperience) and dying during delivery. Fasial et al. in their qualitative study with 14 gravidae determined that they were afraid of delivery pain and of themselves and their babies sustaining possible injury.<sup>34</sup> In the Ministry of Health study, it was determined during focus group discussions that concerns which emerged during pregnancy were derived from uncertainty about what would happen during delivery rather than from the pregnancy period itself.<sup>13</sup>

Labor pain was the most common fear. At the interviews, all except one of the gravidae declared that they were extremely afraid of suffering/feel-

ing pain during delivery. In the qualitative study by Serçekus conducted with 19 gravidae, most of the women stated that they were scared of experiencing labor pain.<sup>35</sup> Labor is recognized as one of the most severe sources of pain. Uterine contraction pain and labor can be a very acute experience, especially for primigravidae. Pain is a critical issue for all women. Since labor is a stress-generating condition in terms of the physical and psychological aspects, anxiety and fear always accompany labor pain.<sup>36</sup>

Labor fear affects the preference of gravidae for delivery. Due to the fears they have about delivery, gravidae may opt for cesarean section or if they feel uncertain, they may prefer a vaginal delivery. In this study, the two gravidae who preferred cesarean section at the first two interviews explained their preference as being due to the fear of possible damage to the baby during a vaginal delivery. One gravida who had chosen vaginal delivery at the first two interviews underwent cesarean section at the hospital at her own request since she was scared of feeling pain. Serçekuş found that some gravidae wanted to have a cesarean section due to the fear of delivery.<sup>35</sup> Fear of delivery/labor pain was in the first place amongst the reasons for preferring cesarean section while fear of vaginal delivery was in the third place.<sup>8,22,24</sup>

The present study determined that the fear of half of the gravidae was derived from the concerns they felt about the health of their babies. They expressed their fears in terms of possible damage to the baby due to vaginal delivery or self-derived reasons during delivery. The fears the gravidae had of experiencing a problem during delivery or of being unable to accomplish labor were based on their concern for their babies. One of the gravidae stated: "I am willing to do anything, but I want my baby to be healthy". The gravidae emphasized that they were giving more importance to the health of their babies. Serçekuş found that fears of some of the gravidae were focused mostly on the health of their babies, and in the study by Melender and Lauri, most gravidae said they were focused on the health of their babies.<sup>35,37</sup> This situation can be explained by the universality of the value given to the child. In this study, two gravidae declared at the

first interview that they were scared of dying during labor. In the second interviews, they said that they were still scared but they were mostly afraid of causing possible damage to their babies. This situation may be attributed to the decrease in pregnancy complaints in the second trimester and to the acceptance of pregnancy as a reality along with the emergence of the physical changes. The gravida was now focused on her baby and started experiencing concerns associated with the instinct to protect him/her.

One gravida in the study stated that she was afraid of the vaginal examination, and two gravidae said they were scared of lying on the delivery table. A gravida who declared in the interviews that she wanted to have a vaginal delivery underwent cesarean section by her own request since she did not want to have a vaginal examination after labor had started. It was thought that they had developed a predisposition against vaginal examination or lying on the delivery table and were afraid. Some possible reasons for this included hearing about experiences of other women with vaginal examination or lying on the delivery table, hearing stories from other women, having had no previous vaginal examination and feeling herself vulnerable during examination. In Turkey, labor always takes place on the delivery table and movement is limited during vaginal delivery. This fear of being forced to lie on the delivery table was thought to affect the delivery preference of the women. In the study by Serçekuş, gravidae stated that they were scared of vaginal examination during delivery.<sup>35</sup>

#### DELIVERY EXPERIENCE

The delivery experiences of the gravidae varied depending on the method of delivery. Only one of the women who had a vaginal delivery said it did not last as long and hard as she had expected, while the others stated that they experienced more difficult and worse deliveries than expected. In the study by Uçum et al, one of three women who had vaginal deliveries described delivery as a “nice and perfect experience”, while 27.4% of the women said it was a “hard and painful experience”.<sup>23</sup> In the present study, the gravida who had vaginal delivery

described it as hard and long. The reason for this situation may be explained by the fact that they experienced an interventional labor, they had not taken a preparation course for the delivery during their pregnancies and they did not have accurate knowledge about the delivery. Episiotomy was performed in all the vaginal deliveries and vacuum extraction was performed to one gravida.

**Implemented delivery method:** It was determined that most of the gravidae who opted for vaginal delivery during their pregnancies underwent cesarean section. The reasons for cesarean section were given as not wanting to undergo touching (1), inability to resist pain (2), a large baby (2), fetal distress (1) and lack of cervical dilatation (1). Gözükara and Eroğlu detected that most of the women in their study were planning to have vaginal delivery (86.2%) but there were more than the planned number of cesarean sections (38.6%).<sup>8</sup> In their study, Uçum et al. determined that 36.2% of the women underwent elective cesarean section.<sup>23</sup> In the present study, only three gravida had elective cesarean sections.

**Satisfaction with delivery:** Only two of the women who underwent vaginal delivery said they were satisfied with the delivery, while one gravida in the study stated that she very much regretted undergoing a vaginal delivery. Three gravidae stated that they were satisfied with delivering by cesarean section; however, two gravidae declared that they were distressed following delivery by cesarean section and experienced difficulties in caring for their babies. In the study by Uçum et al. 76.6% of the women who underwent cesarean section and 88.3% of those who underwent a vaginal delivery stated that they were satisfied with their delivery methods.<sup>23</sup> In the present study, only two gravidae were satisfied with the vaginal delivery. This can be explained by the fact that they had hard, long and bad delivery experiences. Many gravidae wanted to have a vaginal delivery due to cultural reasons and because it is natural, although they were afraid of labor. Negative experiences during labor increase the dissatisfaction with vaginal delivery.

## CONCLUSIONS

A planned pregnancy was found to affect pregnancy-related feelings and feelings about bodily changes during pregnancy. Most of the women in the study wanted to have a vaginal delivery since they thought that it was healthier, and their preferences did not change throughout the pregnancy. All the gravidae feared delivery and this fear affected the preference for the delivery method.

Women should be accurately instructed about delivery methods and a true understanding should be established. They should be asked about their expectations of the delivery. The place of delivery should be decided upon beforehand and delivery preparation classes should be attended in order to familiarize the woman with the place before delivery. This should serve to eliminate false information and beliefs about delivery. The fears associated with delivery should be identified by nurses during the pregnancy and each gravida should undergo special counseling for her specific fears. Finally, plans and policies should be developed to increase the comfort of the mother during vaginal delivery and the support for the mother after cesarean section.

## Acknowledgement

The authors would like to thank all gravida who participated in the study.

## Source of Finance

During this study, no financial or spiritual support was received neither from any pharmaceutical company that has a direct connection with the research subject, nor from a company that provides or produces medical instruments and materials which may negatively affect the evaluation process of this study.

## Conflict of Interest

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.

## Authorship Contributions

**Idea/Concept:** Filiz Süzer Özkan, Nurdan Demirci; **Design:** Filiz Süzer Özkan, Nurdan Demirci; **Control/Supervision:** Filiz Süzer Özkan, Nurdan Demirci; **Data Collection and/or Processing:** Filiz Süzer Özkan; **Analysis and/or Interpretation:** Filiz Süzer Özkan, Nurdan Demirci; **Literature Review:** Filiz Süzer Özkan; **Writing The Article:** Filiz Süzer Özkan, Nurdan Demirci; **Critical Review:** Filiz Süzer Özkan, Nurdan Demirci; **References and Fundings:** Filiz Süzer Özkan.

## REFERENCES

- Kömürçü N. [Women's health and complementary medicine: alternatives at birth]. Şirin A, Kavlak O, editörler. Kadın Sağlığı. 1. Baskı. İstanbul: Bedray Press Publishing Ltd; 2008. p.97.
- Karabulutlu Ö. [Identifying the women's choice of delivery methods and the factors that affect them]. İstanbul University Florence Nightingale Journal of Nursing 2012;20(3): 210-8.
- Daş Z. [Gebeliğin Psikososyal ve Kültürel Boyutu]. Taşkın L, editör. Doğum ve Kadın Sağlığı Hemşireliği. 11. Baskı. Ankara: Sistem Ofset Matbaacılık; 2012. p.211-23.
- Özkan S, Aksakal FN, Avcı E, Civil EF, Tunca MZ. [Delivery methods: choices for women and related factors]. Turk J Public Health 2013;11(2):59-71.
- Şahin NH. [Rates and outcome of cesarean section]. Maltepe University Hemşirelik Bilim ve Sanatı Dergisi 2009;2(3):93-8.
- World Health Organization (WHO). World Health Statistics 2015. Geneva: WHO Press; 2015. p.161. Erişim Tarihi: 08 July 2015. <http://apps.who.int/iris>.
- T.C. Sağlık Bakanlığı Sağlık İstatistikleri Yılı 2015, Türkiye Cumhuriyeti Sağlık Bakanlığı Sağlık Araştırmaları Genel Müdürlüğü. Ankara: Sistem Ofset Basım Yayın San ve Tic Ltd. Şti; 2016.
- Gözükara F, Eroğlu K. [Factors that affect the choices of primipars on the mode of delivery]. Journal of Hacettepe University Faculty of Nursing 2008;32-6.
- Sayiner F, Demirci N. [Effectiveness of prenatal perineal massage in vaginal delivery]. İstanbul University Florence Nightingale Journal of Nursing 2007;15(60):146-54.
- Güngör İ, Gökyıldız Ş, Nahcivan NÖ. [Opinions of a group of women who had cesarean sections about their births and their problems in the early postpartum period]. İstanbul University Florence Nightingale Journal of Nursing 2004;13(53):185-97.
- Yıldırım A, Şimşek H. [Nitel Araştırmanın Bilimsel Araştırma Geleneği İçindeki Yeri] Sosyal Bilimlerde Nitel Araştırma Yöntemleri. 7. Baskı Tıpkı Basım. Ankara: Seçkin Yayıncılık; 2008. p.55.
- Hacettepe Üniversitesi Nüfus Etütleri Enstitüsü. Türkiye Nüfus ve Sağlık Araştırması 2013. T.C. Kalkınma Bakanlığı, T.C. Sağlık Bakanlığı ve TÜBİTAK. Ankara: Elma Teknik Basım Matbaacılık Ltd Şti; 2014. p.343.
- Conseil Sante, SOFRECO, EDUSER, 2007. Sağlık Arama Davranışı Araştırması Temel Bulgular. T.C Sağlık Bakanlığı Ana Çocuk Sağlığı ve Aile Planlaması Genel Müdürlüğü ve Avrupa Komisyonu Türkiye Delegasyonu Ankara: p.18.

14. Tekin N, Kukulu K. [The Expectations of the First-time Pregnant Women with Regard to Pregnancy]. *Journal of Psychosomatic Obstetrics and Gynecology* 2010;31:123-33.
15. Sözeri C, Cevahir R, Şahin S, Semiz O. [The knowledge and attitudes of pregnant women about pregnancy period]. *Fırat Sağlık Hizmetleri Dergisi* 2006;1(2):92-104.
16. Mete S. [Relationship between stress, hormones and labor]. *DEUHYO ED* 2013;6(2):93-8.
17. Kadayıfçı O, Evrûke C, Ürünsak İF, Ünal E. [Doğum Fizyolojisi ve Vajinal Doğum] Ayhan A, Durukan T, Günalp S, Önderoğlu L, Yaralı H, Yüce K, editörler. *Temel Kadın Hastalıkları ve Doğum.2. Baskı*. Ankara: Güneş Tıp Kitabevi; 2008. p.196.
18. Sayiner F, Demirci N. [Effectiveness of prenatal perineal massage in vaginal delivery]. *Istanbul University Florence Nightingale Journal of Nursing* 2007;15(60):146-54.
19. Karaçam Z. [Effects of episiotomy on sexual function in the postpartum period]. *Hemşirelikte Araştırma Geliştirme Dergisi* 2008;1:38-46.
20. Karakuş A, Şahin NH. [The attitudes of women toward mode of delivery after childbirth]. *International Journal of Nursing and Midwifery* 2011;3(5):60-5.
21. Chong ES, Mongelli M. Attitudes of Singapore women toward cesarean and vaginal deliveries. *Int J Gynecol Obstet* 2003;80(2):189-94.
22. Sayiner F, Özerdoğan N, Giray S, Özdemir E, Savcı A. [Identifying the women's choice of delivery methods and the factors that affect them]. *Perinatal Journal* 2009;17(3):104-12.
23. Uçum EY, Kitapçıoğlu G, Karadeniz G. [The attitudes, experience and satisfaction toward mode of delivery among women]. *Fırat Sağlık Hizmetleri Dergisi* 2010;5(13):107-23.
24. Karlström A, Nystedt A, Hildingsson I. A comparative study of the experience of childbirth between women who preferred and had a cesarean section and women who preferred and had a vaginal birth]. *Sex Reprod Healthc* 2011;2(3):93-9.
25. Vatanserver Z, Okumuş H. [The study of decision making about the delivery type of pregnant women]. *DEUHYO ED* 2013;6(2):82-7.
26. Yanikkerem E, Göker A, Piro N. [Women's opinions about mode of delivery and satisfaction with hospital care after cesarean section]. *Selçuk Tıp Derg* 2013;29(2):75-81.
27. Coşar F, Demirci N. [The effect of education of pregnant women in childbirth education classes based on the philosophy of lamaze on perception and orientation of birth process]. *S.D.Ü Sağlık Enstitüsü Dergisi* 2012;3(1):18-30.
28. Duran ET, Atan ÜŞ. [Qualitative analysis of perspectives of women about cesarean section/vaginal delivery]. *Genel Tıp Derg* 2011;21(3):83-8.
29. Kabakian-Khasholian T. 'My pain was stronger than my happiness': experiences of caesarean births from Lebanon]. *Midwifery* 2013;29(11):1251-6.
30. Karlström A, Nystedt A, Johansson M, Hildingsson I. Behind the myth--few women prefer caesarean section in the absence of medical or obstetrical factors. *Midwifery* 2011;27(5):620-7.
31. Goodin M, Griffiths M. Caesarean section on demand. *Obstet Gynecol Reprod Med* 2012;22(12):368-70.
32. Hofberg K, Ward MR. Fear of childbirth, toco-phobia, and mental health in mothers: the obstetric-psychiatric interface. *Clin Obstet Gynecol* 2004;47(3):527-34.
33. Fenwick J, Staff L, Gamble J, Creedy DK, Bayes S. Why do women request caesarean section in a normal, healthy first pregnancy? *Midwifery* 2010;26(4):394-400.
34. Fiasal I, Matinnia N, Hejar AR, Khodakarami Z. Why do primigravidae request caesarean section in a normal pregnancy? A qualitative study in Iran. *Midwifery* 2014;30(2):227-33.
35. Serçekuş P, Okumuş H. Fears associated with childbirth among nulliparous women in Turkey. *Midwifery* 2009;25(2):155-62.
36. Ergin A. [Doğum ve Doğumun Tarihçesi]. Kömürcü N, Ergin A, editörler. *Doğum Ağrısı ve Yönetimi. 1. Baskı*. İstanbul: Bedray Yayıncılık Ltd; 2008. p.2-14.
37. Melender HL, Lauri S. Fears associated with pregnancy and childbirth--experiences of women who have recently given birth. *Midwifery* 1999;15(3):177-82.