



# What is Turkish women's opinion about vaginal delivery?

## Türk kadınının vajinal doğum hakkındaki görüşü nedir?

Gülşah İlhan<sup>1</sup>, Fatma Verit Ferda Atmaca<sup>1</sup>, Meryem Eken<sup>2</sup>, Zehra Tavukçuoğlu<sup>1</sup>, Ayşegül Özel<sup>1</sup>, Mucize Özdemir<sup>1</sup>, Emre Sinan Güngör<sup>1</sup>

<sup>1</sup>Süleymaniye Maternity Research and Training Hospital, Clinic of Obstetric and Gynecology, İstanbul, Turkey

<sup>2</sup>Zeynep Kamil Educational and Research Hospital, Clinic of Obstetric and Gynecology, İstanbul, Turkey

### Abstract

**Objective:** To determine Turkish women's opinion about vaginal birth.

**Materials and Methods:** This prospective cohort study was conducted in Department of Obstetrics and Gynecology of Süleymaniye Maternity Research and Training Hospital in İstanbul, Turkey, between February 2015 and April 2015. The participants of this study were 100 primiparous pregnant women who had vaginal deliveries. The women were interviewed face-to-face after the birth. Data were collected through a socio-demographic and clinical questionnaire.

**Results:** Ninety percent of the women reported vaginal birth as the ideal mode of delivery route; a minority of the women (10%) had decided on cesarean birth before having a vaginal birth. Anxiety of pain was the major factor that influenced choice of delivery type before giving birth. After vaginal birth, 84% of women were satisfied with vaginal birth and reported that they would prefer vaginal birth for their next pregnancy. However, 16% reported that they would prefer cesarean birth for their next pregnancy due to pain of labor, pain of episiotomy, anxiety, and prolonged duration of labor.

**Conclusion:** The results suggest the majority of women prefer to give birth vaginally and reported vaginal birth as the ideal choice. J Turk Soc Obstet Gynecol 2015;2:75-8

**Key Words:** Cesarean delivery, preferences of the route of delivery, vaginal delivery

### Özet

**Amaç:** Bu çalışma Türk kadınının vajinal doğum hakkındaki görüşünü belirlemek amacıyla yapıldı.

**Gereç ve Yöntemler:** Bu prospektif kohort çalışma, Şubat 2015 ve Nisan 2015 arasında İstanbul'da Süleymaniye Kadın Doğum ve Çocuk Hastalıkları Eğitim ve Araştırma Hastanesi'nde yürütüldü. Bu çalışmanın katılımcıları vajinal doğum yapan 100 primipar gebe idi. Bu 100 primipar gebeye, vajinal doğum sonrası yüz yüze anket yapıldı. Veriler sosyo-demografik ve klinik anketler yoluyla toplanmıştır.

**Bulgular:** Çalışmaya katılan gebelerin %90'ı doğum öncesinde ideal doğum şekli olarak vajinal doğumu, gebelerin %10'u ise sezaryen doğumu tercih etmişlerdir. Doğumdan önce doğum tercihini etkileyen en önemli faktör ağrı anksiyetesi idi. Vajinal doğum sonrası kadınların %84'ü vajinal doğumdan memnun olduklarını ve bir sonraki gebelik için vajinal doğumu tercih edeceklerini bildirdi. Ancak, kadınların %16'sı travay ağrısı, epizyotomi ağrısı, ağrı anksiyetesi, uzun travay üresi gibi nedenlerle bir sonraki gebelik için sezaryen doğumu tercih edeceklerini bildirmişlerdir.

**Sonuç:** Sonuçlar; kadınların çoğunun doğum öncesinde doğum şekli olarak vajinal doğumu tercih ettiğini ve ideal doğum şekli olarak vajinal doğumu gördüklerini göstermektedir. J Turk Soc Obstet Gynecol 2015;2:75-8

**Anahtar Kelimeler:** Sezaryen doğum, doğum şekli tercihi, vajinal doğum

### Introduction

Turkey has a high cesarean section birth rate. This rate has been gradually increasing in developing and developed countries. It had been reported as 37% in the Turkey Demographic and Health Survey (TDHS) 2008 report and 48% in TDHS-2013 report<sup>(1-3)</sup>. These rates are significantly higher than the acceptable rate of cesarean delivery by the World Health Organization, which is given as 15%<sup>(4)</sup>.

Cesarean section is life saving both for fetus and mother in the case of appropriate indications. Some studies that compared

vaginal birth with cesarean section reported some advantages of cesarean section with respect to avoidance of emergency delivery, decrease in birth related fetal complications, and pelvic floor injuries<sup>(5,6)</sup>. Despite the improvements in prophylaxis of infection and thromboembolic events, this mode of delivery is not without risks for the mother and fetus. The increased rate of cesarean section is accompanied by abnormal placentation, uterine rupture, excessive blood loss, need for hysterectomy, injury to internal organs, increased neonatal intensive care requirement, and even maternal death. It also has considerable hindrances including prolonged hospitalization, delayed

Address for Correspondence/Yazışma Adresi: Meryem Eken, MD,

Zeynep Kamil Educational and Research Hospital, Clinic of Obstetric and Gynecology, İstanbul, Turkey

Phone: +90 530 510 44 68 E-mail: meryemkurek@yahoo.com

Received /Geliş Tarihi : 23.04.2015

Accepted/Kabul Tarihi : 24.05.2015

breastfeeding, higher costs and postoperative pain<sup>(7,8)</sup>. Besides obstetric indications, obstetrician preference and, maternal request may be reasons for cesarean section<sup>(9,10)</sup>.

In this study we aimed to evaluate Turkish women's opinion about vaginal birth before and after delivery, and factors affecting this tendency.

## Materials and Methods

This prospective cohort study was conducted in the Department of Obstetrics and Gynecology of Süleymaniye Maternity, Research and Training Hospital, İstanbul, Turkey, between February 2015 and April 2015. The participants of this study were primiparous pregnant women who gave birth vaginally. After the participants gave their informed consent, they were interviewed face-to-face within two hours of their vaginal delivery. This prospective study was approved by Süleymaniye Maternity, Research and Training Hospital's Institutional Review Board.

A total of 100 primiparous women who had vaginal deliveries enrolled in this study. Data were collected through a socio-demographic and clinical questionnaire. These questionnaires included questions on demographics, socioeconomic status, reproductive health of patient, and also 5 open ended questions. The five open ended questions were as follows:

1. "Do you have positive or negative opinion about vaginal delivery?"
2. "What was your preference about the ideal delivery route?" (before giving vaginal delivery),
3. "What is your preference about ideal delivery route now?" (after giving vaginal delivery),
4. "What will be your preference about next time when giving birth?"
5. "What are your reasons?" (If the answer of 4<sup>th</sup> question was cesarean delivery).

Descriptive analysis were performed including frequency, percentage, means, and standard deviation on the demographic features, socioeconomic status and obstetric history. The answers to the first question were categorized, positive or negative opinion about vaginal delivery. He answers to the second, third, and fourth questions were coded into vaginal or cesarean delivery. The coded reponses were entered into SPSS (Statistical Package for Social Sciences) for Windows version 17.0. The answers to the fifth question were entered into Microsoft Excel exactly as the patients expressed to provide further information about preference and opinion of vaginal delivery.

## Results

The mean maternal age was 25.6 years (range, 17-36 years). Most of the women (47%) were aged younger than 25 years. The average weeks of gestation was 39.09±2.53 weeks. All of the women were primiparous. Eight percent of women were illiterate. The education history of the patients was as follows: 32% primary school, 28% middle school, and 32% graduated

from high school. Among all patients, 92% unemployed. None of them had maternal or fetal illness. All of the pregnancies were spontaneous conception. Prenatal care was considered adequate in 87% of women (Table 1).

Ninety percent (n=90) of the women reported that vaginal delivery was the ideal mode of delivery, but 10% (n=10) of the women had decided on cesarean delivery before having a vaginal birth. After vaginal delivery, 84% (n=84) of the women were satisfied with vaginal delivery and had a positive opinion about vaginal birth. They also reported that they would prefer vaginal delivery for their next pregnancy. However, 16% (n=16) of the women reported that they would prefer cesarean delivery for their next pregnancy. Ten of these 16 patients had previously declared that cesarean delivery was the ideal method of giving birth. The main reason of all 10 patients (100%) was anxiety about pain. The other less expressed reasons were anxiety about fetal injury and urinary-fecal incontinence. Although 6 of these 16 women had declared vaginal delivery as the ideal birth route, their opinion of vaginal birth had become negative after the delivery. These 16 patients who would opt for a future cesarean delivery made a total of 35 comments about their preference. The most frequent comment to fifth question was pain of labor 16/35 (45.7%) and the second frequent comment was pain of episiotomy 12/35 (34.2%). Less frequent comments were around maternal anxiety about pain 4/35 (11.4%) and prolonged duration of labour 3/35 (8.5%) (Figure 1).

## Discussion

The Turkish women surveyed in this study displayed an obvious preference for vaginal delivery. Anxiety about pain was the major factor that influenced delivery type selection before giving birth. Pain of labor and episiotomy were the most commonly expressed negative concerns of Turkish women after delivery.

Preference of cesarean section are often associated with factors including maternal age, education, and socio-economic

**Table 1.** Characteristics of the patients

Characteristic	n (%)
Age (years)	
<25	47 (47)
25-35	25 (25)
>35	28 (28)
Education	
No education	8 (8)
Primary	32 (32)
Middle	28 (28)
High School	32 (32)
University	-

factors<sup>(11-19)</sup>. Lin et al. reported that there was a direct relationship between maternal age and demand for cesarean section<sup>(20)</sup>. Najmeh et al. concluded that mothers with high education were more likely to prefer cesarean section<sup>(21)</sup>. Rebelo et al. from Brazil and Ahmad et al. from Iran also showed similar results, but Cesaroni et al. from Italy reported that women with lower education were more willing to undergo cesarean birth<sup>(21-24)</sup>. A Brazilian study showed that women of higher socioeconomic status also had higher preference for cesarean section<sup>(23)</sup>. Fuglenes et al. in Norway and Pang et al. in Hong Kong reported that cesarean birth was preferred in 2.4% and 16.8% of primiparous women, respectively<sup>(25,26)</sup>. This rate was much higher in a study conducted in Iran (50.7%) by Mohammad et al. in our study, all of the women who preferred cesarean birth before delivery were pirimiparous, aged younger than 25 years, and were poorly educated<sup>(27)</sup>.

One of the explanations for increase in cesarean section rate is the maternal request for cesarean delivery. A meta-analysis and systematic review of Mazzoni et al. found the pooled global preference for a cesarean section to be 15.6%<sup>(28)</sup>. In our study, 90% (n=90) of women reported vaginal delivery was the ideal mode of delivery; 10% (n=10) had decided on cesarean delivery before having a vaginal birth. After vaginal delivery, sixteen percent (n=16) of all women reported that they would prefer a cesarean delivery for their next pregnancy.

Numerous studies concluded that the main reason for preferring cesarean was fear of pain<sup>(25,29-31)</sup>. In our study, maternal anxiety about pain was also the most commonly-expressed reservation when deciding on cesarean birth as the ideal route of delivery before giving birth. Anxiety about fetal well-being and urinary-fecal incontinence were other drawbacks expressed by the patients regarding vaginal delivery.

Our data suggest that the high cesarean birth rate in Turkey does not reflect women's preference of delivery. However, it should be emphasized that this study is a cross-sectional study and this limits considerations regarding causality. We suggest that further studies are warranted to examine factors that influence women's preferences in private, state, and university hospitals.

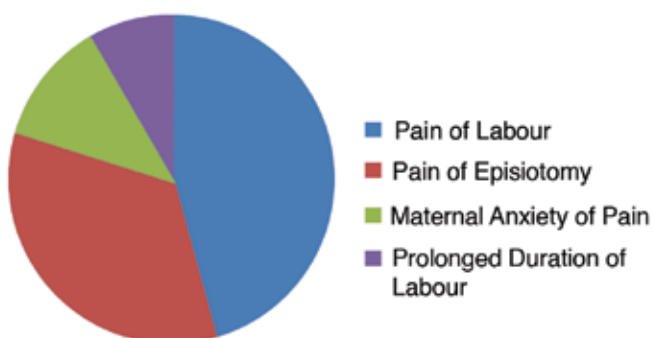


Figure 1. Distribution of comments after vaginal delivery

A strength of this study is that we only investigated primiparae. In this way we avoided the potential influence of previous negative birth experiences. All of the patients were interviewed within two hours of their vaginal delivery. Thus, debate over the reliability of the answers based on time arrangement was overcome.

There are some limitations of this study. The study sample was small; further studies with greater patient populations will highlight possible missing comments. This study was conducted by the doctor who delivered the patient. If the interviewer were somebody else, the comments might have been different. The interview was conducted early in the postpartum period. If the women asked the same questions after a longer interval from birth, these comments might also be different.

**Ethics Committee Approval:** It was taken.

**Informed Consent:** It was taken.

**Concept:** Gülşah İlhan, Meryem Eken

**Design:** Gülşah İlhan, Fatma Verit Ferda Atmaca

**Data Collection or Processing:** Gülşah İlhan, Zehra Tavukçuoğlu, Ayşegül Özel, Mucize Özdemir, Emre Sinan Güngör

**Analysis or Interpretation:** Gülşah İlhan, Fatma Verit Ferda Atmaca, Meryem Eken, Zehra Tavukçuoğlu

**Literature Search:** Ayşegül Özel, Mucize Özdemir, Emre Sinan Güngör

**Writing:** Gülşah İlhan, Fatma Verit Ferda Atmaca, Meryem Eken

**Peer-review:** Externally peer-reviewed.

**Conflict of Interest:** No conflict of interest was declared by the authors.

**Financial Disclosure:** The authors declared that this study has received no financial support.

## References

1. Hacettepe University Institute of Population Studies. Turkey Demographic and Health Survey Main Report 2008. Available from: <http://www.hipshacettepe.edu.tr>.
2. World Health Organization. The World Health Statistics report 2010. 2011. Available from: <http://www.who.int/whosis/whostat/2010/en/>.
3. Hacettepe University Institute of Population Studies. Turkey Demographic and Health Survey Main Report 2008. Available from: <http://www.hipshacettepe.edu.tr/tsna2013/data/TNSA-2013-ana-Rapor-tr.pdf>.
4. No authors listed. Appropriate technology for birth. *Lancet* 1985;2:436-7.
5. O'Boyle AL, O'Boyle JD, Calhoun B, Davis GD. Pelvic organ support in pregnancy and postpartum. *Int Urogynecol J Pelvic Floor Dysfunct* 2005;16:69-72.
6. Delancey JO, Kane Low L, Miller JM, Patel DA, Tumbarello JA. Graphic integration of causal factors of pelvic floor disorders: an integrated life span model. *Am J Obstet Gynecol* 2008;199:610-5.
7. Landon MB, Spongy CY, Thomas E, Hauth JC, Bloom SL, Varner MW, et al. Risk of uterine rupture with a trial of labor in women with multiple and single prior cesarean delivery. *Obstet Gynecol* 2006;108:12-20.

8. Visco AG, Viswanathan M, Lohr KN, Wechter ME, Gartlehner G, Wu JM, et al. Cesarean delivery on maternal request: maternal and neonatal outcomes. *Obstet Gynecol* 2006;108:1517-29.
9. Gee H. Cesarean section should be available on request: For: the mother's autonomy should be paramount. *BJOG* 2015;122:359.
10. Silver RM. AGAINST: Cesarean delivery on maternal request is a bad idea. *BJOG* 2015;122:360.
11. Waldenström U, Hildingsson I, Ryding EL. Antenatal fear of childbirth and its association with subsequent caesarean section and experience of childbirth. *BJOG* 2006;113:638-46.
12. Wiklund I, Edman G, Ryding EL, Andolf E. Expectations and experiences of childbirth in primiparae with caesarean section. *Br J Obstet Gynaecol* 2008;115:324-31.
13. Nieminen K, Stephansson O, Ryding EL. Women's fear of childbirth and preference for cesarean section--a cross-sectional study at various stages of pregnancy in Sweden. *Acta Obstet Gynecol Scand* 2009;88:807-13.
14. Hildingsson I, Radestad I, Rubertsson C, Waldenström U. Few women wish to be delivered by caesarean section. *Br J Obstet Gynaecol* 2002;109:618-23.
15. Kringeland T, Daltveit AK, Møller A. What characterizes women in Norway who wish to have a cesarean section. *Scand J Public Health* 2009;37:364-71.
16. Karlström A, Nystedt A, Johansson M, Hildingsson I. Behind the myth--few women prefer cesarean section in the absence of medical or obstetrical factors. *Midwifery* 2011;27:620-7.
17. Wiklund I, Edman G, Andolf E. Cesarean section on maternal request: reasons for the request, self-estimated health, expectations, experience of birth and signs of depression among first-time mothers. *Acta Obstet Gynecol Scand* 2007;86:451-6.
18. Pang SM, Leung DT, Leung TY, Lai CY, Lau TK, Chung TK. Determinants of preference for elective cesarean section in Hong Kong Chinese pregnant women. *Hong Kong Med J* 2007;13:100-5.
19. Mancuso A, De Vivo A, Fanara G, Settineri S, Triolo O, Giacobbe A. Women's preference on mode of delivery in Southern Italy. *Acta Obstet Gynecol Scand* 2006;85:694-9.
20. Lin HC, Xirasagar S. Maternal age and the likelihood of a maternal request for cesarean delivery: A 5-year population-based study. *Am J Obstet Gynecol* 2005;192:848-55.
21. Maharlouei N, Rezaianzadeh A, Hesami E, Moradi F, Mazloomi E, Joulaei H, et al. The preference of Iranian women to have normal vaginal or cesarean deliveries. *J Res Med Sci* 2013;18:943-50.
22. Cesaroni G, Forastiere F, Perucci CA. Are cesarean deliveries more likely for poorly educated parents? A brief report from Italy. *Birth* 2008;35:241-4.
23. Rebelo F, da Rocha CM, Cortes TR, Dutra CL, Kac G. High cesarean prevalence in a national population-based study in Brazil: the role of private practice. *Acta Obstet Gynecol Scand* 2010;89:903-8.
24. Ahmad-Nia S, Delavar B, Eini-Zinab H, Kazemipour S, Mehryar AH, Naghavi M. Cesarean section in the Islamic Republic of Iran: Prevalence and some sociodemographic correlates. *East Mediterr Health J* 2009;15:1389-98.
25. Fuglenes D, Aas E, Botten G, Øian P, Kristiansen IS. Why do some pregnant women prefer cesarean? The influence of parity, delivery experiences, and fear. *Am J Obstet Gynecol* 2011;205:45.
26. Pang SM, Leung DT, Leung TY, Lai CY, Lau TK, Chung TK. Determinants of preference for elective cesarean section in Hong Kong Chinese pregnant women. *Hong Kong Med J* 2007;13:100-5.
27. Mohammad Beigi A, Tabatabaee SHR, Mohammad Salehi N, Yazdani M. Factors influencing cesarean delivery method in Shiraz Hospitals. *Iran J Nursing* 2009;21:37-45.
28. Mazzoni A, Althabe F, Liu NH, Bonotti AM, Gibbons L, Sanchez AJ, et al. Women's preference for cesarean section: a systematic review and meta-analysis of observational studies. *BJOG* 2011;118:391-9.
29. Weaver JJ, Statham H, Richards M. Are there "unnecessary" cesarean sections? Perceptions of women and obstetricians about cesarean sections for nonclinical indications. *Birth* 2007; 34:32-41.
30. Gamble J, Creedy D, McCourt C, Weaver J, Beake S. A critique of the literature on women's request for cesarean section. *Birth* 2007;34:331-40.
31. Torloni MR, Betrán AP, Montilla P, Scolaro E, Seuc A, Mazzoni A, et al. Do Italian women prefer cesarean section? Results from a survey on mode of delivery preferences. *BMC Pregnancy Childbirth* 2013;26:13:78.