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Awareness and perceptions of Turkish women towards delivery methods

Türk kadınlarının doğum yöntemleri hakkındaki bilgi düzeyi ve bakış açısı

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ABSTRACT

Objective: Our aim is to identify the causes of the women's preferences of vaginal delivery vs. cesarean section and their attitudes for an elective cesarean section.

Methods: 400 healthy woman who had applied for antenatal care were included in the study. A questionnaire which is consisted of 21 questions, focused on preference toward mode of delivery and the etiology of these preferences was conducted as a face to face interview. According to history of delivery methods, women have separated into three groups as; women have never given birth/nulliparous (group 1), women who had only vaginal deliveries (group 2), and women who had at least one cesarean deliveries/previous cesarean section (group 3).

Results: Of the 400 women questioned, 348 (%87) opted for vaginal delivery, whereas only 52 (%13) opted for an elective caesarean delivery. Ratios of cesarean delivery preference is high in group 3 (%47.5) than group 1(%26) and 2 (%2.7) . Main reasons for vaginal delivery preference: feeling of less pain, fast and easy recovery and less bleeding and infection risc for mothers were the most common preference reasons among all 3 groups. The most common reasons for choosing caesarean delivery were: 'more comfortable and easy' in group 1 and 'tubal ligation demand' in group 3. 'Less pain' and 'fear of tearing (episiotomy)' also other common reasons for choosing cesarean delivery among all 3 groups.

Conclusion: In order to reduce the rate of implemented cesarean section, it is substantially important to encourage educated women and those who have experienced advanced maternal age for increasing the rate of vaginal delivery. *J Clin Exp Invest 2014; 5 (2): 173-178*

Key words: Cesarean, mode of delivery, patient preference, vaginal delivery

ÖZET

Amaç: Bizim amacımız kadınların vajinal doğum, sezeryan doğum seçimindeki etmenleri belirlemek ve elektif sezeryan ile doğuma bakış açılarını belirlemektir.

Yöntemler: Çalışmamıza antenatal bakım için başvuran 400 sağlıklı kadın aldık. Çalışmamızda yüz yüze soru cevap şeklinde 21 soru içeren bir anket formu kullandık ve formda doğum şekli seçimleri ve buna etkileyen faktörler ile ilgili sorular sorduk. Daha önceki doğum şekillerine göre hastaları daha önce hiç doğurmamış/nullipar (grup 1), daha once sadece vajinal doğum yapmış olanlar (grup 2) ve daha önce en az 1 sezaryen doğum yapmış olanlar (grup 3) olarak ayırdık.

Bulgular: Çalışmaya katılan 400 kadının 348 i (%87) vajinal doğum 52 si (%13) ise sezeryan doğumu tercih etti. Sezeryan ile doğumu tercih etme oranları grup 3 te(%47.5) grup 1(%26) ve 2(%2.7) ye göre daha yüksekti. Her 3 grupta da vajinal doğumu tercih etmenin ana nedenleri 'daha az ağrı, hızlı ve kolay iyileşme, anne için daha az kanama ve enfeksiyon riski' idi. Sezeryan doğumu tercih etmenin ana nedenleri ise grup 1 de daha konforlu ve kolay olması iken grup 3 te tüp ligasyonu isteği idi. Daha az ağrı ve epizyotomiden korku ise diğer ana nedenlerdendi.

Sonuç: Sezeryan oranlarını azaltmak ve normal doğum oranlarını arttırmak için kadınların eğitilmesi ve ileri anne yaşına sahip kadınların yeterli ve doğru bilgilendirilmesi gerekmektedir.

Anahtar kelimeler: Sezaryen, doğum şekli, hasta tercihi, vajinal doğum

INTRODUCTION

Pregnancy and maternity have different meanings for various societies all over the world. In Turkish society, having a child is one of the basic elements that have an economical, psychological and social impact .Besides rapidly increasing malpractice lawsuits and legal obligations that are created for physicians prevent them to act in a professional manner in delivery methods. According to last estima-

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tions cesarean section incidence changes between 16.8% and 40% among countries [1]. In 2004, cesarean section rates rose to its maximum number with 29.1% in USA (United States of America). On the other hand, accompanied by suggestions of WHO (World Health Organization), this ratio decrease to 15% in 2010 [2]. Since the 1970s, cesarean section rates have increased rapidly in many developed European countries. This increasing rates is related to several factors, such as first pregnancy, increase in safety of cesarean section, developing technology, changes in women's preferences, and increasing maternal age [3]. Another factor likely to play a major role in birthing choice is maternal knowledge and education. Ratios is higher in neighboring countries than Turkey for example; In Iran 40.7% of births occurs by cesarean section [4]. In Greece, cesarean section rate has determined as 36.7% in 2002 and 35.5% in 2006 [5]. Demographic and Health Survey that conducted in 2003 in Turkey, shows that approximately 21% of babies born by cesarean section in Turkey [6]. According to 2008 data, 37% of whole births that occurred in the last five years have done by cesarean section. Forty five percent of first deliveries has done by cesarean section. Births rate by cesarean is increasing along with the level of education and welfare [7]. These rates that reported in our country are more than the rate of 21.2% which has proposed by WHO within the scope of 'World Health Report 2010 [2].

The aim of this study was to identify the causes of the women's preferences of vaginal delivery vs. cesarean section and their attitudes for an elective cesarean section in one of the largest educational and research hospitals of Turkey which is in the largest province of Turkey, Istanbul.

METHODS

After local ethics committee's approval, 400 pregnant woman, who had applied for antenatal care to our hospital which is a metropolitan tertiary referral hospital between September 2011 and March 2012 were included in the study. A lot of patients from several socioeconomic statuses who come from all geographical regions of Turkey apply to our hospital. According to previous delivery method, women have separated into three groups as; women have never given birth/nulliparous (group 1), women who had only vaginal deliveries (group 2), and women who had at least one cesarean deliveries/previous cesarean section (group 3).

A questionnaire which is consisted of 21 questions, focused on preference toward mode of delivery and the etiology of these preferences was conducted as a face to face interview after verbal consent was obtained. The questionnaire consisted of two parts: the first part asked about the participant's demographic data and in the second part of the questionnaire, participants were asked: 'how would you prefer to give birth to this baby? And why?' Participants were asked to choose from possible reasons about their preference that were listed separately both for vaginal and caesarean delivery. Participants were informed that they could choose more than one reason. Obtained data were evaluated by the help of computer systems.

The statistical analysis was performed by using SPSS (Statistical Package for Social Sciences) packaged 15.0 software. Besides descriptive statistical methods (e.g. minimum, maximum, median), chi square test and Fisher exact test were used for categorical variables. After ANOVA, posthoc Bonferroni test were used for means in the analysis of comparing groups. Results were assessed with 95% confidence interval and the significance was accepted as the level of $p<0.05$.

RESULTS

About 10.3% (n= 41) of 400 women who participated in study were under the age of 19. 60.3% (n=241) of these women were between the ages of 20 and 29, and 29.5% (n=118) of them were over the age of 30. The overall rate of illiterates women among study participants was 24% (n=96) and 61.3% (n=245) of these participants took for 8 years of primary education. About 8.3% (n=33) of women were high school graduates and 6.5% of women were academy or university graduates. Housewives participated the study were at the rate of 78.5% (n=314). The rate of participants whose monthly average income was below 1000 Turkish lira (TL) was 7.3%, women whose monthly average income was between 1000 TL and 2000 TL was at the rate of 58.8% (n=235), 25.8% (n=103) of them were between 2000 TL and 3000 TL, and 8.3 percent (n=33) were over the 3000 TL , respectively. Patients who participated in the study were put in order according to their geographical regions where they were born. Among these regions Eastern Anatolia region had biggest portion 36.6%. Mean of participants gravidas was 2.42±1.40 (median=2; 0-9), mean of parity was 1.29±1.26 (median=1; 0-8), and lastly the mean of gestational week was determined as 26.48±7.62 (median=26; 2-41).

Of the 400 women, the overall rate of women who had only vaginal deliveries was 65% (n=260) which was higher than women who had previous cesarean delivery 10% (n=40) and women who have never given birth 25% (n=100). Mode of delivery preferences among these 3 groups is given below in the table 1. Of the 400 women questioned, 348 (%87) opted for vaginal delivery, whereas only 52 (%13) opted for an elective caesarean delivery.

Detailed statistical information about mode of delivery preferences among these 3 groups is given below in the Table 1 along with the reasons.

Ratios of cesarean delivery preference is high in group 3 (%47.5) than group 1 (%26) and 2 (%2.7). When we look at the main reasons for vaginal delivery preference feeling of less pain, fast and easy recovery and less bleeding and infection risk for mothers were the most common preference reasons among all 3 groups (Table 1). The overall rate of women who claimed that there would be less pain during vaginal delivery was higher in group 3 than group 2 and 1 ($p<0.05$).

Table 2 shows the distribution of reasons for caesarean delivery preference. The most common reasons for choosing caesarean delivery were: 'more comfortable and easy' in group 1 and 'tubal ligation demand' in group 3. 'Less pain' and 'fear of tearing (episiotomy)' also other common reasons for choosing cesarean delivery among all 3 groups.

The effects of sociodemographic characteristics of pregnant women on preference of delivery type were further studied. Among groups, the percentage of working women has found statistically lower in group 2 (14.6%) comparing with group 1 (35%) and group 3 (32.5%) ($p<0.05$). The rate of education level of mother was lower in group 2 than group 1 and 3 ($p<0.05$). Also advanced age, increasing parity and increased monthly income were associated with caesarean delivery preference ($p<0.05$).

Table 1. Causes of vaginal delivery preferences

	Group 1		Group 2		Group 3		p
	n	%	n	%	n	%	
Delivery Options Vaginal birth	74	74	253	97.3	21	52.5	<0.001
Cesarean section	26	26	7	2.7	19	47.5	
Vaginal delivery preference reasons							
Less pain	45	60.8	157	62.1	14	66.7	0.008
Fast and easy recovery	40	54.1	113	44.7	11	52.4	0.321
Early return to routine activities/ early discharge	15	20.3	31	12.3	5	23.8	0.109
No uterine prolapse or incontinence	7	9.5	6	2.4	0	0.0	-
Better for a baby	19	25.7	32	12.6	1	4.8	0.009
Fear of anaesthesia & operation	4	5.4	7	2.8	2	9.5	<0.001
Experience natural	11	14.9	16	6.3	1	4.8	0.051
Desire to deliver more than three babies	6	8.1	27	10.7	2	9.5	0.809
Less bleeding and infection risk for mothers	18	24.3	134	53.0	7	33.3	<0.001
Less death risk for infants	7	9.5	22	8.7	1	4.8	0.793
Inexpensiveness	1	1.3	19	7.4	1	3.2	-

Group 1: woman who never given birth/nulliparous
Group 2: women who had only vaginal deliveries
Group 3: women who had at least one cesarean delivery

Table 2. Causes of cesarean delivery preferences

	Group 1		Group 2		Group 3	
	n	%	n	%	n	%
Cesarean section preference reasons						
Less pain	14	53.8	2	28.6	6	31.6
Fear of tearing (episiotomy)	11	42.3	2	28.6	3	15.8
More comfortable and easy	15	57.7	2	28.6	3	15.8
Tubal ligation demand	6	23.1	2	28.6	9	47.4
No uterine prolapse or incontinence	8	30.8	1	14.3	3	15.8
Better for a baby	4	15.4	1	14.3	2	10.5
Opportunity to arrange birth time	4	15.4	1	14.3	4	21.1
Requirement of spouses'	1	3.8	0	0.0	1	5.3
Previous infertility	1	3.8	0	0.0	0	0.0
Safe for mother	1	3.8	0	0.0	1	5.3

Group 1: woman who never given birth/nulliparous
Group 2: women who had only vaginal deliveries
Group 3: women who had at least one cesarean delivery

DISCUSSION

Women's feelings and thoughts about cesarean section or vaginal delivery vary among societies. Numerous studies that have been conducted in Turkey indicated causes of women's vaginal delivery preference. These causes was; handle the sense of control, a desire for vaginal delivery experience, and a desire for early recovery and early discharged from hospital, a lower complication rates, fear of anesthesia and operation, safety of mother, better relationship to baby, less painful period after giving birth, the thoughts of 'better for the health' and 'birth is a normal event' and immediate breast feeding [8,9].

Of the 400 women who participated the study, 52 women (%13) preferred cesarean delivery for their current pregnancy. On the other hand, 348 women (%87) preferred vaginal delivery. Similar to us; Buyukbayrak et al [8] showed that of the women questioned, 84.1% opted for vaginal delivery whereas only 15.9% opted for an elective caesarean delivery in Turkey at 2010. Optimal cesarean rate is 15% that WHO recommended [2].

Hospital records indicate that a high proportion of caesarean sections are performed with no clinical indication, for social reasons or on the women's request .In recent years, an increase in maternal request for caesarean section has been given as a possible determinant for the increase in the caesarean rate. The ethical aspect of performing a caesarean section on request is also a major topic to be discussed. The American College of Obstetricians and Gynecologists' (ACOG) ethics committee determined that the physician is ethically justified in performing a caesarean delivery on maternal request if he or she believes that it promotes the overall health and welfare of the woman and her fetus, but is equally justified in refusing to perform one if the physician believes it to be detrimental to the woman and her fetus [10]. But in contrary to ACOG's recommendations, the International Federation of Obstetrics and Gynecology (FIGO) states that 'performing caesarean section for non-medical reasons is ethically not justified' [11].

In this study, major factors and reasons were analyzed and the reasons why those women choose to give birth by vaginal delivery or cesarean section are pointed out in table 1 and 2 with in detail information. In a similar study to this from Chile it was shown that the women who preferred vaginal delivery generally felt it was the safer mode of delivery, while the women who preferred caesarean delivery felt that caesarean was safer. This difference was also noted regarding pain, recovery, and their partners' preferences [12]. A similar study in Singapore revealed that the most popular of the various reasons for requester a caesarean delivery was 'avoidance of labor and stress' (60%), which is similar to our study results. On the other hand, in another study from Nigeria, previous infertility (40.7%) and advanced maternal age at first pregnancy (29.6%)

were the most common reasons for requesting caesarean section. İn our study advanced age, increasing parity and increased monthly income were associated with caesarean delivery preference.

Epidemiological studies in Brazil and in Chile have demonstrated that caesarean section rates are higher among women of higher education level; higher income categories and private insurance status [13]. Also Feng et al. suggest that the socioeconomic region of residence is a more important determinant of the caesarean section rate than the women's individual socioeconomic characteristics. The rate was much higher in urban women with a low level of education than in similarly educated rural women [14]. But in some countries the trends are different. As has been shown in Brazil, once a certain threshold has been reached, caesarean section is increasingly regarded as harmless and effective by both doctors and women. Moreover, poor women, inspired by trends among the rich, increasingly demand caesarean section [15]. The mean age of mothers among the previous cesarean section patients was found significantly higher than others. Women who were older, whose spouses were older, who had a history of disease before pregnancy, and who reported health problems during pregnancy were more likely to have cesarean deliveries. These factors were generally consistent with previous study findings [16,17].

In the similar studies in literature it was observed that most women had already decided on a mode of delivery in the second trimester. Taiwan is a county that has high cesarean rates as Turkey. Over 93% of women in Taiwan who preferred cesarean delivery during the second trimester had a cesarean delivery. It is usual that clinicians discuss the mode of delivery with women after half of gestation. The results suggest that counseling about mode of delivery should be provided at an earlier time point. Most women did not change their decision regarding mode of delivery from the second to the third trimester, and a significant number of women decided their mode of delivery before the second trimester. Identifying women who had a preference for cesarean delivery during the second trimester may increase the opportunity to influence their decision and thus reduce the rate of cesarean delivery. Mass media campaigns could be conducted to educate the general public about the risks associated with cesarean section and the benefits of vaginal birth in order to influence the decision earlier [18].

High CS rates also impose an unnecessary financial burden on the health system, which becomes worse in resource restricted settings [19]. Strategies to prevent high CS rates gain significance when the high risks of intra-partum and postpartum complications for mothers and infants are taken into consideration. Several studies show that elective CS is associated with significance higher risk of mortality and morbidity in mothers and infants compared to vaginal delivery [20,21]. Also similar to us; some of the studies from across the world have shown that the caesarean section rate may be influenced by factors other than the ability to pay, including fear of litigation, convenience, perceived safety, fear of substandard care and the opportunity for sterilization .

In our study, contrary to what is believed, it was observed that an important part of Turkish women has preferred vaginal delivery regardless of former mode of delivery that they have undergone. Although most of the pregnant women prefer the vaginal way of delivery, women who request caesarean delivery for non-medical reasons are increasing in number and greater emphasis should be placed on understanding the motivation, values and fears underlying a woman's request for mode of delivery.

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