

Original Article

Opinions of Labor Professionals about Vaginal Birth after Cesarean in Turkey

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Abstract

Objective: The purpose of this study is to examine the opinions of labor professionals in Turkey about vaginal birth after cesarean (VBAC).

Methods: The study was conducted with 95 midwives, nurses and gynecologists working in the maternity wards of public and private hospitals located in the city center of Malatya in Turkey. The data were obtained by using a questionnaire, involved questions about personal and occupational characteristics of the participants as well as their opinions regarding VBAC.

Results: 49.5% of the participants were midwives, and 64.2% had bachelor's degree and higher. Their average age was 35.67 ± 11.72 and they had an average occupational experience of 13.05 ± 11.71 years. 73.7% disagreed with the statement "I would like to take responsibility in VBAC". 82.1% stated that the pregnant women had the right to request VBAC, 62.1% stated that they informed the pregnant women about VBAC; however, only 25.3% suggested VBAC for the pregnant women and 37.9% expressed that they supported the pregnant women for VBAC. 44.2% thought that VBAC increases the risk of maternal mortality and 34.7% considered that it was risky for the newborns. 61.7% of the midwives, 14.3% of the nurses and 100% of the gynecologists stated that they executed VBAC before. The rate for executing VBAC was higher in those who had higher working period, had a higher average age, were gynecologists, and had bachelor's degree and higher ($p < 0.05$).

Conclusion: Despite the labor professionals expressed that the pregnant women had the right to request VBAC and they informed them accordingly, it was observed that they did not want to take a related responsibility, they did not suggest VBAC, and they considered VBAC risky.

Keywords: Vaginal birth after cesarean, labor, professionals.

Introduction

According to the World Health Organization (WHO), cesarean section rates are increasing all over the world (WHO, 2015). Edwin Cragin's statement "Once a cesarean, always a cesarean" in 1916 has increased the elective cesarean section by 35% and the cesarean operation started to be beyond an operation made for saving the mother's or the baby's life; it has become a practice that will make life easier for mother, baby and healthcare professionals (Dolen, Gokcu, 2002). For this reason, the cesarean section rate in the world had started to increase in the following years (Gozukara et al. 2016).

Cesarean rates vary due to differences in the health policies of the countries in the world and the viewpoints of people to the labor (Tekirdag, Cebeci, 2010). According to the data of WHO in 2010, cesarean rates of some countries were 30.2% in the United States of America, 37.4% in Italy, 41.3% in Brazil, 36.1% in Mexico, 37.7% in Korea, 28.9% in Switzerland, and 27.8% in Germany (WHO, 2010). According to the Turkish Demographic and Health Survey (TDHS)'s data, it was reported that cesarean section rate in Turkey has also increased gradually as in the world and it raised up to 48% in 2013 TDHS (TDHS, 2014).

The rate of caesarean section continues to increase in the world. One of the most important reasons for this is the recurrent caesarean sections performed after the previous cesarean section (Rosen, Dickinson, 1990). Vaginal birth after c-section (VBAC) is an alternative method for decreasing the cesarean section rates (Gozukara, Eroglu, 2011). In the literature, it is stated that VBAC is a successful and safe method in selected cases (Dodd et al. 2013). It has been shown that maternal mortality rate and morbidity rate in mothers and infants in VBACs are lower (Guise et al. 2010).

It was reported in a systematic review investigating the strategies for increasing VBAC that giving individualized information to women who previously underwent a cesarean section increased VBAC. Other factors that significantly affect the rate of VBAC are associated with clinicians rather than women. It has been reported that the development of guidelines for clinicians, the creation of supportive policies for VBAC, and providing feedback to the clinicians

about VBAC rates may increase the rate of VBAC (Catling et al. 2009). However, number of studies about the opinions of clinicians on VBAC, the preventive factors, and their participation during the decision-making process is not enough. In the study conducted by Rees et al., with midwives and physicians in England, midwives and physicians indicated that they looked positively to help pregnant women in the decision process on mode of delivery (Rees et al. 2009). In another study conducted in the United Nations, midwives and physicians indicated that they were avoiding VBAC application. Midwives and physicians showed fear of taking responsibility and ease of application of caesarean section among reasons to avoid VBAC (Cox, 2011).

In short, only several studies have been conducted about the opinions of birth professionals on VBAC but no such study was found in Turkey where VBAC rate is low. However, determining the opinions of birth professionals who will inform and direct the pregnant women and are the main practitioners for VBAC is important in order to increase the VBAC rates. It has also been shown in the studies that healthcare professionals practicing the birth can reflect their own preferences on the mode of delivery to the pregnant women (Foureur, 2010). The purpose of this study was to investigate the opinions of birth professionals working in the maternity ward of hospitals about VBAC.

Material and Method

The population of this descriptive study consisted of midwives, nurses, and gynecologists working in the maternity wards of public and private hospitals in city center of Malatya in Turkey (N=105). In the dates when the study was conducted, there were 28 midwives and 26 gynecologists working in the maternity ward of the public hospital located in city center of Malatya. There are nine private hospitals with maternity ward in the city center of Malatya. A total of 23 midwives, 21 nurses and 17 gynecologists work in these hospitals. No sampling calculation was performed in the study and the sample of the study consisted of all birth professionals who agreed to participate in the study. The study was completed with a total of 95 birth professionals including 47 midwives, 21 nurses and 27 gynecologists.

The data of the study were collected in January-March 2016 using the questionnaire prepared by the researchers upon the literature review (Emmet et al. 2006; Inegol, Kamalak, 2010; Lundgren et al. 2015). The questionnaire includes questions about the employees' individual characteristics (such as age, gender, marital status, status of having children), professional characteristics (such as title, year of employment) and opinions about vaginal birth after cesarean section (such as barriers in front of the vaginal birth after cesarean, practices, suggestions). The questionnaire consists of 25 questions in total.

Before collecting the study data, the approval was obtained from Inonu University Health Sciences Scientific Research and Publication Ethics Committee (No:2016/5-21). Questionnaires were given to the professionals working in the services of the hospitals, which were determined by the researchers, after providing the necessary explanations to them and they were requested to fill these questionnaires out individually. The questionnaires were

collected by the researchers after the professionals filled them.

Statistical analysis

SPSS 16.0 packaged software was used for statistical evaluation of the data. The data were evaluated using mean, standard deviation, number, percentage, chi square, and independent samples t test. The results were evaluated in a confidence interval of 95% and a level of significance of $p < 0.05$.

Results

It was found that 47 (49.5%) of 95 birth professionals participating in the study were midwives, 21 (22.1%) were nurses and 27 (28.4%) were gynecologists. Their average age was 35.6 [standard deviation (SD) was 11.7, min-max was 19-62], most of them were women (81.1%), married (63.2%), and had bachelor's and master's degree (64.2%). 64.2% of the birth professionals were working in private hospitals and their average working duration was 13.0 (SS 11.7, min-max 1-41) years (Table 1).

Table 1. Distribution of birth professionals according to some characteristics (n=95)

Characteristics	n (%)
Age (years) (Mean \pm SD, 35.6 \pm 11.7)	
Job title	
Midwife	47 (49.5)
Nurse	21 (22.1)
Doctor	27 (28.4)
Gender	
Female	77 (81.1)
Male	18 (18.9)
Marital status	
Married	60 (63.2)
Single	35 (36.8)
Education level	
High school and associate degree graduate	34 (35.8)
Undergraduate and graduate	61 (64.2)
Working institution	
Private hospital	61 (64.2)
Public hospital	34 (35.8)
Working time (years) (Mean \pm SD, 13.0 \pm 11.7)	

Table 2. Distribution of opinions of birth professionals regarding VBAC (n = 95)

Statements about VBAC	Yes	No
	n (%)	n (%)
VBAC is beneficial for mother	41 (43.2)	54 (56.8)
VBAC is beneficial for newborn	56 (58.9)	39 (41.1)
I think VBAC rates will increase in the coming years	39 (41.1)	56 (58.9)
The Ministry of Health's policies are sufficient for VBAC	13 (13.7)	82 (86.3)
I wanted to take responsibility at VBAC	25 (26.3)	70 (73.7)
Pregnant women has the right to request VBAC.	78 (82.1)	17 (17.9)
I inform the pregnant women about VBAC	59 (62.1)	36 (37.9)
I recommend VBAC to pregnant women	24 (25.3)	71 (74.7)
I support pregnant women requesting VBAC	36 (37.9)	59 (62.1)
I recommend VBAC to my fist-degree relatives	21 (22.1)	74 (77.9)
VBAC increases the maternal mortality risk	42 (44.2)	53 (55.8)
VBAC is risky for newborn	33 (34.7)	62 (65.3)
The uterine rupture risk is high in VBAC	73 (76.8)	22 (23.2)
Hysterectomy risk is high in VBAC	65 (68.4)	30 (31.6)
Blood transfusion risk is high in VBAC	54 (56.8)	41 (43.2)
I convince the pregnant woman, requesting VBAC, for cesarean section	37 (38.9)	58 (61.1)
I do not evaluate the request of the pregnant woman asking for VBAC	24 (25.3)	71 (74.7)
If the pregnant woman requesting VBAC meets the necessary conditions, I take her for vaginal birth	57 (60.0)	38 (40.0)

Tablo 3. According to the characteristics of delivery professionals, the distribution of VBAC application status (n = 95)

	VBAC Application Status		
	Yes n (%)	No n (%)	Test and significance
Job title			
Midwife	29 (61.7)	18 (38.3)	$\chi^2=36.882$ p=0.000
Nurse	3 (14.3)	18 (85.7)	
Doctor	27 (100.0)	-	
Working institution			
Private hospital	34 (55.7)	27 (44.3)	$\chi^2=2.936$ p=0.087
Public hospital	25 (73.5)	9 (26.5)	

Education level			
High school and associate degree graduate	15 (44.1)	19 (55.9)	$\chi^2=7.280$
Undergraduate and graduate	44 (72.1)	17 (27.9)	$p=0.007$
Age (years) Mean \pm SD			
	39.2 \pm 10.3	29.8 \pm 11.7	$t=4.053$
			$p=0.000$
Working time (years) Mean\pmSD			
	16.1 \pm 11.1	7.94 \pm 11.0	$t=3.513$
			$p=0.001$

While 43.2% of the birth professionals responded that the VBAC was beneficial for the mother, 58.9% said that it was beneficial for the infant. Most of the birth professionals said no to the statement that VBAC would increase in the coming years and the policies of the Ministry of Health were sufficient (respectively, 58.9%; 86.3%). 73.7% of them said no to the statement of "I want to take responsibility in VBAC". 82.1% of the birth professionals stated that pregnant women had the right to ask VBAC, 62.1% said that they informed the pregnant women about VBAC but only 25.3% suggested to the pregnant women and 37.9% said that they supported pregnant women for VBAC. 55.8% of the birth professionals responded as "No" for the statement that the VBAC would increase the maternal mortality risk and 65.3% said no for the statement that it will be risky for the infants. Those who stated that the uterine rupture risk was high in VBAC were 76.8%, those who stated that the hysterectomy risk was high were 68.4% and those who said that the blood transfusion risk was high was 56.8%. Most of the birth professionals said "No" for the statement that I would convince the pregnant woman, requesting VBAC, for cesarean section and I do not evaluate her request (61.1%; 74.7%, respectively) (Table 2).

It was found that 62.1% of the birth professionals said that they had performed VBAC before. The rate of performing VBAC was high in those who were gynecologists and had bachelor's and master's degrees, high average age, and higher working hours ($p<0.05$; Table 3).

Discussion

There has been a rapid increase in cesarean section rates all over the world. For this reason, studies are carried out to reduce cesarean section rates. One of these works is the VBAC practice. Professionals working in the birth clinics have

important roles in encouraging the pregnant women for VBAC (Gozukara, Eroglu, 2011). In this study investigating the opinions of birth professionals about VBAC, it was determined that while 58.9% of the birth professionals stated that the VBAC was beneficial for the newborns, the rate of those who stated that it was beneficial for mothers was lower (43.2%). It was determined in another study conducted in Turkey that 74.6% of the healthcare professionals knew the benefits of VBAC for mothers (Gozukara et al. 2016). In a qualitative study conducted by Lundgren et al. with the midwives and obstetricians in the countries where VBAC rates were high (Sweden, Finland and the Netherlands), all professionals stated that they thought VBAC as the first choice for the benefit of mother and infant (Emmett et al. 2006). This difference may be caused by the responsibilities given to midwives and obstetricians in the delivery of healthcare services. In the countries with high VBAC rates, midwives have independent responsibility in healthy pregnancies and births. There is a professional team work between midwives and obstetricians (Emmett et al. 2006).

Despite the advantages of VBAC, clinicians prefer cesarean delivery for the next delivery in a great majority of pregnant women who previously had cesarean sections (Gozukara et al. 2016). The reason of this may be that they do not want to take responsibility for VBAC. In the present study, 73.7% of the birth professionals stated that they did not want to take responsibility for VBAC. Similarly, in the qualitative study by Cox, it was determined that the most important reason behind why the midwives and obstetricians avoided VBAC was the fear of taking responsibility (Cox, 2011). In the studies conducted in developed countries, it was shown that malpractice concerns of the healthcare

professionals were high (Foureur, 2010) and one of the reasons why cesarean rates were high was the malpractice concern (Ministry of Health, 2010). In the countries where the VBAC rate is high, midwives and obstetricians indicated that they think that they should take responsibility after informing the pregnant women and the final decision on mode of delivery should be given by the obstetrician (Emmett et al. 2006). Informing the pregnant women who previously underwent cesarean section, monitoring them more frequently, and taking measures against risks may eliminate the concerns of birth professionals about taking responsibility.

In fact, legal measures against VBAC risks in many countries are not sufficient (Cox, 2011). In the present study, majority of the birth professionals (86.3%) also stated that policies of the Ministry of Health were not sufficient. Therefore, in order to eliminate the anxiety of taking responsibilities in the practices, practices should be updated and evidence-based by preparing VBAC guidelines.

Guiding and informing the healthcare professionals especially in deciding in mode of delivery of the pregnant women are important (Gozukara et al. 2016, Gozukara, Eroglu, 2011). It was determined in the present study that while the majority of the birth professionals (82.1%) stated that the pregnant women had the right to ask for VBAC and they informed the pregnant women about it (62.1%), the rate of those who recommend VBAC to pregnant women (25.3%) and the rate of those who support VBAC (37.9%) were low. It is surprising that the rate of birth professionals who recommend and support VBAC is low. This result explains the low rate of VBAC. In the qualitative study conducted by Cox, the midwives and obstetricians stated that the reasons for choosing cesarean again instead of VBAC were the ease of implementation (Cox, 2011). However, in many studies and reviews, it was concluded that normal vaginal delivery can be tried by informing especially the pregnant women who wanted VBAC (Gozukara et al. 2016; Inegol, Kamalak, 2010; American College of Obstetricians and Gynecologists-ACOG, 2015; Yanikkerem, Karakus, 2016).

The other reason for the low application rate and why VBAC is not preferred by women and birth professionals is the fear of complication development (Yanikkerem, Karakus, 2016). In

the present study, the majority of the birth professionals stated that the uterine rupture, hysterectomy and blood transfusion risks were high in VBAC. In the study conducted by Gozukara et al., with the healthcare professionals they stated that 47.6% of the professionals stated that there was a uterine rupture risk in VBAC; on the other hand, 46.0% stated that they had no knowledge about the risks (Gozukara et al. 2016). In fact, a successful VBAC has less morbidity compared to the recurrent cesarean (Gozukara, Eroglu, 2011; Cox, 2011). When VBAC is applied to proper cases, a success can be achieved up to 49-87% and their benefits become greater than its risks (Dodd et al. 2013). Cunningham et al., determined that maternal mortality and morbidity rates decreased in VBAC than recurrent cesarean sections (Cunningham et al. 2010). In the meta-analysis performed by Dodd et al., no difference was found in mortality and serious morbidity rates in terms of mother and newborn when recurrent cesarean and vaginal delivery were compared in patients who previously underwent cesarean section (Dodd et al. 2013). Providing training for birth professionals in this regard may help in the control of increased cesarean rates.

The conditions, team, and experience of the centers are important for the VBAC application (Gozukara, Eroglu, 2011). In the present study, it was determined that those who were gynecologists, had bachelor's degree and higher, high average age, and high working duration underwent more VBAC. Similarly, the literature suggests that younger health professionals are less willing to undergo VBAC and try VBAC less. This was shown to be associated with the inadequacy of education, experience and skills (National Institutes of Health Consensus, 2010). In addition, in the qualitative study by Cox, midwives stated that they did not want to take legal responsibility since they were not included in the guidelines and they were excluded from the policy making processes (Cox, 2011). As a matter of fact, the VBAC guideline published by ACOG in 2010 also does not mention the role of midwives and provides recommendations for birth professionals and anesthesiologists (ACOG, 2015).

Conclusion and Recommendations: It was seen that even though birth professionals stated that the pregnant women had the right to request

VBAC and they informed patients accordingly, they did not want to take responsibility for it, they did not recommend or support it and they considered it risky. It was also found that all of the obstetricians practiced VBAC. In accordance with these results, it is recommended to organize in-service trainings especially covering midwives and nurses by determining the negative thoughts of birth professionals about VBAC.

References

- American College of Obstetricians and Gynecologists. (2010) ACOG Practice bulletin no. 115: Vaginal birth after previous cesarean delivery. *Obstet Gynecol* 116(2), 450-63.
- Catling-Paull C, Johnston R, Ryan C, Foureur MJ, & Homer CS. (2011) Non-clinical interventions that increase the uptake and success of vaginal birth after caesarean section: a systematic review. *Journal of Advanced Nursing* 67(8), 1662–1676.
- Cox KJ. (2011) Providers' perspectives on the vaginal birth after caesarean guidelines in Florida, United States: a qualitative study. *BMC Pregnancy and Childbirth* 11: 72. doi: 10.1186/1471-2393-11-72.
- Dodd JM, Crowther CA, Huertas E, Guise JM, & Horey D. (2013) Planned elective repeat caesarean section versus planned vaginal birth for women with a previous caesarean birth. *Cochrane Database of Systematic Reviews* 10(12), CD004224. doi: 10.1002/14651858.CD004224.pub3.
- Dolen I. & Gokcu M. (2002) Cesarean and ethics. *The Turkish Journal of Obstetrics and Gynecology* 1(2), 86-89.
- Emmett CL, Shaw ARG, Montgomery AA, & Murphy DJ. (2006) Women's experience of decision-making about mode of delivery after a previous caesarean section: the role of health professionals and information about risk. *An International Journal of Obstetrics & Gynaecology* 113(12), 1438-45.
- Foureur M, Ryan CL, Nicholl M, & Homer C. (2010) Inconsistent evidence: analysis of six national guidelines for vaginal birth after caesarean section. *Birth* 37(1), 3-10.
- Gozukara F, & Eroglu K. (2011) A Way to Prevent the Increase in Cesarean Birth: Vaginal Birth After Cesarean Instead of "Once a Cesarean Always a Cesarean" Approach and the Roles of Nurse. *Hacettepe University Faculty of Health Sciences Nursing Journal* 18(2), 89-100.
- Gozukara I, Karapinar O, Hakverdi AU, Kurt R, & Demirkiran G. (2016) Cesarean Birth After Vaginal Delivery: A Survey in Healthcare Professionals. *The Journal of Gynecology - Obstetrics and Neonatology* 13(4), 151-3.
- Guise J-M, Eden K, Emeis C, Denman MA, Marshall N, Fu RR, Janik R, Nygren P, Walker M, & McDonagh M. (2010) Vaginal birth after cesarean: new insights. *Evidence Reports/Technology Assessments* 191: 1-397.
- Hacettepe University Institute of Population Studies. (2014) Turkey Demographic and Health Survey (TDHS). Hacettepe University Institute of Population Studies, T.C. Ministry of Development and The Scientific and Technological Research Council of Turkey.
- Inegol Gumus I, & Kamalak Z. (2010) Should all women with prior cesarean undergo a vaginal birth attempt? *Journal of Ist Faculty Med.* 73(1), 33-7.
- Lundgren I, Van Limbeek E, Vehvilainen Julkunen K, & Nilsson C. (2015) Clinicians' views of factors of importance for improving the rate of VBAC (vaginal birth after caesarean section): a qualitative study from countries with high VBAC rates. *BMC Pregnancy and Childbirth* 15, 196. doi: 10.1186/s12884-015-0629-6.
- National Institutes of Health Consensus (2010) National Institutes of Health consensus development conference statement: vaginal birth after cesarean: New insights. March 8–10. *Obstet Gynecol.* 115(6), 1279-95.
- Rees KM, Shaw AR, Bennert K, Emmett CL, & Montgomery AA. (2009) Healthcare professionals' views on two computer-based decision aids for women choosing mode of delivery after previous caesarean section: a qualitative study. *BJOG* 116: 906–14.
- Rosen M, & Dickinson J. (1990) Vaginal birth after caesarean section: meta-analysis for indicators of success. *Obstet Gynecol* 76(1), 865-69.
- Ministry of Health, General Directorate of Mother and Child Health and Family Planning. (2010) Birth and Cesarean Action Management Guide. Damla Printing, Ankara, Turkey.
- Tekirdag AI. & Cebeci R. (2010) Cesarean rates in education hospital. *Gynecology Obstetrics Pediatric and Pediatric Surgery Medical Journal* 2(1), 21-6.
- World Health Organization (2010) World Health Statistics: Monitoring Health for the SDGs, Sustainable Development Goals.
- World Health Organization (2015) Cesarean sections should only be performed when medically necessary. <http://www.who.int/mediacentre/news/releases/2015/caesarean-sections/en/> (Access date: 31.12.2016).
- Yanikkerem E. & Karakus A. (2016) Vaginal Birth After Cesarean: Guidelines According to Some Countries. *Journal of Education and Research in Nursing* 13(2), 79-87.