

Full Length Research Paper

Postnatal preferences for childbirth modes among women

Asli Karakuş¹ and Nevin Hotun Sahin^{2*}

¹The Vehbi Koc Foundation American Hospital, Istanbul, Turkey.

²Department of Obstetrics and Gynecologic Nursing, Florence Nightingale School of Nursing, Istanbul University, Sisli 34387, Istanbul, Turkey.

Accepted 13 April 2023

The aim of this study was to determine the attitudes of the women toward mode of delivery during postpartum period. The descriptive study was conducted in 600 puerpera women at a private hospital in Istanbul, Turkey. We collected data with “attitudes toward mode of delivery” (ATMOD) form during face to face interview. The researchers prepared the ATMOD form according to the literature. The ATMOD was 14 attitude statements. Participants answered statements as agree (1), or disagree (2). We evaluated data using the SPSS program. Average age was higher in cesarean deliveries (CD) than vaginal deliveries (VD). 28.1% of women had an elective CD; 71.8% stated that they would advise other potential mothers to opt for a CD; and 82.3% would choose CD in case of another delivery. In the study, women’s overwhelmingly favored VD and regarded CD as an appropriate procedure for abnormal pregnancies. Nevertheless, it was found that participants opted for CD as they think it is easier and less painful. The prenatal training programs aim at assisting couples in choosing VD by attracting their attention on delivery and correct breathing and relaxation techniques and by helping them in feeling less pain.

Key words: Attitudes, childbirth methods, cesarean delivery, prenatal training program, postpartum vaginal delivery, women.

INTRODUCTION

Cesarean delivery (CD) is a surgical procedure for fetus delivery when vaginal delivery (VD) becomes contraindicate (Gunalp and Tuncer, 2004). The proportion of CD is increasing all over the world (Kiran and Jayawickramam, 2002; Walker et al., 2004). In Turkey, the proportion of CD in private hospitals is stated between 80 to 85% (Sahin et al., 2007), compared to 48 to 52% in university hospitals (Gungor et al., 2004) and 21 to 38% in public hospitals (Yaramis et al., 2007). According to the World Health Organization (WHO), the rate of CD should not usually exceed 15% (Terhaar, 2005; Hopkins and

Amaral, 2005; Wang et al., 2006). The rate of CD in Turkey exceeds that of developed countries and of the target defined by the WHO. Apart from medical CD indications, the reasons for the increase in the rates of CD are stated as fear for VD and delivery room due to failure to provide expectant mothers with sufficient level of information on delivery as well as some other reasons such as old-age mothers, multiple pregnancy and the increase in the use of electronic fetal monitoring (EFM) (Gunalp and Tuncer, 2004; Kiran and Jayawickrama, 2002; Lin et al., 2004; National Institute of Health State of Science Conference, 2006; Walker et al., 2004). In addition, the belief that CD is safer for both the mother and the baby turns CD into the preferred childbirth method (Dodd et al., 2004, Gamble and Creedy, 2001; Fenwick et al., 2008). It is stated that doctors, on the other hand, choose CD since it is more profitable, delivery

*Corresponding author. E-mail: nevinsahin34@yahoo.com, nevinsah@istanbul.edu.tr. Tel: + (90) 212 4400000/27082. Fax: + (90) 212 224 4990.

occurs within a shorter time, they do not want to take risks during potentially difficult deliveries, and are aware of the potential to be sued for incorrect medical applications (Hopkins, 2000). It is believed that, in addition to the extension of the CD indications, the factors such as the increase of obtional and repeated CD are thought to increase the CD rate. Recent developments in surgical procedures, anesthesia, medication, medical equipment, and postoperative care have reduced the mortality and morbidity related to CD. However; risks such as infection, bleeding, transfusion need, thromboembolia, prolonged hospital stay, long recovery period and increased pain are still to be considered while opting for the CD (Allen et al., 2003).

The aim of the descriptive cross sectional study was to determine the attitudes of the women toward mode of delivery during early postpartum period in Istanbul, Turkey.

MATERIALS AND METHODS

Participants

The number of births per month in Istanbul is 18,196, SC rate was 35% of this births. The data were collected in a private hospital in Istanbul, Turkey. Main reason for choosing a private hospital to have the CD's rate was high. A total of 766 pregnant women gave birth during the research period. All women were eligible for the study. Of these women 600 women volunteered to participate in the study and were included as non-randomly. The rest of the women (n = 166) did not want to be included in the study for various reasons.

Data collection

Data were collected during interviews using an "attitudes toward mode of delivery" (ATMOD) form. The ATMOD form developed by the researchers according to the literature and revised with a pilot study of 30 women who were not included in the final analysis. The ATMOD form was composed of 14 statements and participants answered statements as agree (1), or disagree (2). Interviews lasted for 25 to 30 min.

Ethical considerations

Written consent for the study was obtained from the ethical review board of the hospital. Participants were informed of the study after childbirth and information about anonymity, confidentiality and consent were included in the explanation.

Data analysis

Statistical package for social sciences, (SPSS version 11.5 for windows) was used for statistical analysis of the data. Percentage of socio demographic characteristics was used during the data analysis. In addition, Chi-Square test was adopted to compare the mode of childbirth, socio demographic and obstetric characteristics, attitudes and mode of childbirth selection of the participants. The

results were evaluated in 95% confidence interval, $p < 0.05$ statistical significance level.

RESULTS

The participants ranged in age from 20 to 49 years. 82.8% of the participants gave childbirth through CD, while 17.2% were VD. Demographic characteristics of the participants in terms of mode of delivery are presented in Table 1. A statistically significant relationship was not found between participants' age, education status, perceived income level, employment status and mode of childbirth. Obstetric characteristics of participants are shown in Table 2. A statistically significant difference was not found between IVF pregnancy, attended to parent preparation class and parity number and mode of childbirth. 69.4% of cases used epidural anesthesia and the remaining 30.6% used general anesthesia. 71.8% of CD cases recommended CD while 28.2 % did not. 93.2% of VD cases recommended VD, while 6.8% did not. The difference between the two groups was statistically significant ($p = 0.000$). 71.8% were for medical reasons and 28.1% were elective. Only 3 VD (n = 103) were not elective. Among the CD carried out for medical reasons, 64.4% of cases involved reasons related to the mother (former CD, cephalopelvic incompatibility, prolonged labor etc.), while 35.6% were for reasons related to the baby (IVF, multiple pregnancy, overdue etc.). 62.1% of cases chose this method due to fear of pain, 26.4% for safety concerns and 12.1% for other reasons (for example the desire to determine the time of birth, further sexual life).

52.4% of cases who underwent a VD chose this method since it is natural, 23.3% since it is healthy, 19.4% since postnatal period is easier to cope with, and 4.8% for other reasons (for example, taking active part in delivery, being aware of the delivery). Table 3 presents the attitudes of the participants in terms of mode of delivery.

DISCUSSION

CD is the most dominant mode of delivery particularly in the private hospitals in Turkey. Focusing on private hospital patients and taking as socio demographic characteristic of participants, previous studies have shown that their samples were in high income group, had higher socio-cultural background and were more educated and generally advanced ages women. Profiles of the participants of the present study show similarities with these previous studies (ahin et al., 2007). Another important factor in womens' choice to attend private hospital is to have the right to opt for elective CD. The rate of the self-elected CD recorded in the study is similar

Table 1. Demographic characteristics of the participants in terms of mode of delivery.

	CD (n: 497)		VD (n: 103)		P
	N	Percentage	N	Percentage	
Age					NS*
20–25	17	3.4	3	2.9	
26–31	186	37.4	50	48.5	
32–37	237	47.7	44	42.7	
38–43	55	11.1	6	5.8	
44–49	2	0.4	0	0.0	
Educational status					NS*
Primary	10	2.0	2	1.9	
High school	78	15.7	13	12.6	
University	336	67.6	71	68.9	
Master's and Doctorate	73	14.7	17	16.5	
Perceived income level					NS*
Lower income than spending	74	30.7	16	20.0	
Higher income than spending	30	8.4	5	6.3	
Income equal to spending	253	70.9	59	73.8	
Employment status					NS*
Employed	354	71.2	80	77.7	
Unemployed	143	28.8	23	22.3	

NS*: Non significant.

to the rate recorded in the study by Gungor et al. (2004) and Sahin et al. (2007). The study shows similarities with the previous studies of CD, which indicate that while the CD history is the primary medical reason for obligatory CD, the fear of pain is the major reason for the elective CD by the women (Chong and Mongelli, 2003; Fenwick et al., 2006, 2008; Sozeri et al., 2007; Sahin et al., 2007; Yaramis et al., 2007; Walker et al., 2004; Wiklund, 2007). In order to enable pregnant women to make informed choices about delivery, according to research evidence-based information should be given to them. Considering the attitudes and concerns of women should be taken as an inseparable part of the decision making process (Fenwick et al., 2008). Various studies were carried to date so as to reveal the feelings, attitudes, ideas and behaviors of women toward different birth methods (Lee et al., 2004; Walker et al., 2004). In the scope of these previous studies, participants were given statements that developed by the authors after literature search, with which they would agree or disagree. A study by Lee et al. (2004) showed that 16.6% of cases agreed that CD is a modern method, while VD is an old method. In a study by Chong and Mongelli (2003), 9.8% of cases agreed that CD is a modern delivery method. The rate of the participants of the study who agreed with this idea was found

to be higher among women who had a CD rather than a VD (7.2%); however, this rate is lower than the rate recorded in the studies by Lee et al. (2004) and Chong and Mongelli (2003). As this study was conducted on a group including high number of elective CD cases, this result is surprising and positive.

In a study by Lee et al. (2004), 66.8% of women agreed that CD section is a surgical procedure performed in abnormal pregnancies, rather than a normal way of giving birth. It is interesting that half of the cases in the present study who had a CD agreed with the statement that: "CD section is a surgical procedure performed in abnormal pregnancies rather than a normal way of giving birth". This finding suggests that further qualitative studies are required on the subject. In the study by Lee et al. (2004), 15.9% of cases believed that CD section is much safer for both the mother and the baby than VD. Our data is similar to the results reported by Chong and Mongelli (2003), Fenwick et al. (2006, 2008) and Walker et al. (2004) studies. This attitude is quite decisive in the preference of elective CD by women. In a study by Walker et al. (2004), 71.4% of women stated that CD is an easier method of delivery, compared with 44% in the present study. Since women who chose CD found it easier rather than VD, this may be a reason why a high

Table 2. Obstetric characteristics of the participants in terms of mode of delivery.

	CD (n: 497)		VD (n: 103)		P
	N	Percentage	N	Percentage	
IVF pregnancy					0.01†
Yes	67	13.5	3	2.9	
No	430	86.5	100	97.1	
Prenatal training program					NS*
Yes	78	15.7	22	21.4	
No	419	84.3	82	78.6	
Parity					NS*
Primipara	357	71.8	72	69.9	
Multipara	140	28.2	31	30.1	

NS*(Non significant); †p<0.01.

rate of the participants chose CD. 28.1% of the cases in the study by Lee et al. (2004) did not believe that a woman who had previously had a CD should also need to choose this method for their subsequent deliveries. In the study, half of the cases agreed to the statement “women who had their first childbirth with CD should have her other deliveries in the same way”. This is related to the fact that one of the main medical reasons of CD is the previous CD. Statistically significant difference was not found between the CD and the VD groups at this attitude. This was an expected result since majority of the CD group was composed of previous CD indications and prevalence of repetitive CD as an indication. In the study by Lee et al. (2004) 68.1% of the cases agreed that women who deliver a baby by CD miss something very important. Since, most of the CD cases in the present study had epidural anesthesia; they did not believe that they missed anything. So, the proportion of the participants who agreed (40.4%) with the statement “women who deliver a baby by CD section miss something very important” was lower than the proportion recorded in the study by Lee et al. (2004). 87.4% of the cases included in the study by Chong and Mongelli (2003) stated that VD is painful. This rate was found to be lower in the present study. Since most of the CD cases in the present study (41%) thought that VD is the more painful method, which may explain their tendency to choose CD. Fenwick et al. (2006, 2008) suggested that most primipara cases can be affected to some extent by the stories of previous deliveries told by the other women, while deciding upon their preferred delivery method. Although half of the cases in the study accept that every woman has VD competence, since they are afraid of VD, they chose CD. Midwife and nurses should play an active role in informing women about this subject.

25% of the cases in a study by Lee et al. (2004) agreed that the vagina exists for sexual activities, rather than giving birth. Although this rate was found to be lower in the study (4%), it is worthwhile to conduct further qualitative research, in order to comprehensively examine the reasons for choosing CD. Women who had a CD, agreed with the statements, “obstetricians choose CD rather than VD in order to reduce delivery risks for the mother and baby” (43.8%) and “the obstetrician should choose the birth method” (37.5%). This result may be expected, since there was a relatively large number of CD within the study group, which included a high proportion of elective CD for personal reasons (28.1%). One of unexpected and surprising results in the present study was that, although half of the participants (63.2%) agreed with the need for VD unless there is a CD medical indication, they nevertheless choose a CD. The results of the study indicate the importance placed on the role of midwives and nurses to provide advice on the choice of birth methods. Prenatal training programs and intrapartum support reduces the mothers’ anxiety and fear and helps to complete the second phase in a short time, without any interruption and by having a more positive experience (Fenwick et al., 2008; Salomonsson et al., 2008). Moreover, gynecologists and obstetricians should encourage women to attend these programs. Prenatal training programs are not still common in Turkey. Although a prenatal education programs is provided free-of-charge at the study hospital, the attending level is so low that patients’ expressions of fear of VD and the high rate of CD is an expectable result. The reasons given in the present study for electing CD are similar to those reported by Chong and Mongelli (2003), Fenwick et al. (2008), Lawrie et al. (2001) and Walker et al. (2004). Since most women share their

Table 3. Attitudes of the participants in terms of mode of delivery.

Statements	VD agree		CD agree		P
	n	Percentage	n	Percentage	
CD is the modern delivery method, whereas VD the past one.	3	0.5	47	7.8	0.001†
CD is a surgical procedure performed in abnormal pregnancies rather than a natural way of delivery.	77	12.6	288	48.0	0.001†
CD is safer than VD for both mother and baby.	7	1.2	209	34.8	0.001†
CD is easier than VD.	27	4.5	237	39.5	0.001†
Women who had their first delivery with CD should have her other deliveries in the CD.	45	7.5	266	44.4	NS*
It takes more time to recover in post-cesarean rather than VD.	97	16.7	354	59.0	0.001†
Women who deliver a baby by CD miss something very important.	85	14.1	158	26.3	0.001†
VD is much painful than CD.	43	7.1	246	41.0	0.001†
Every woman has a VD competence.	70	11.7	260	43.2	0.001†
Vagina is for sexual activities rather than for delivery.	1	0.2	17	2.8	NS*
Obstetricians choose CD rather than VD in order to protect woman and baby in case of delivery risks.	39	6.5	263	43.8	0.05 [§]
Choosing the delivery method should be given to obstetricians.	38	6.4	225	37.5	NS*
VD should be chosen unless there is a medical indication.	99	16.5	379	63.2	0.001†
Having training before the delivery is effective in choosing the delivery.	69	11.5	261	43.5	NS*

NS*: Non significant; p< 0.05[§]; p<0.001†.

experiences about delivery and pre and post-delivery processes, their perceptions are influenced mostly by each other rather than health professionals (Dodwell, 2002; Fenwick et al., 2006, 2008). The finding of the present study that women who have a VD are most likely to recommend this method to others is regarded as a positive situation.

The proportion of women opting for VD could be further increased through the prenatal training programs to be given by midwives and nurses.

Study limitations

The study sample was only a small group, all of whom attended a private hospital. Individuals attending private hospitals are in high-mid

socio-economic group, which means that the results cannot be generalized to the others. However; it is known that CD is more common in private hospitals and that the choices of women are determinant in such hospitals. Consequently, these views and perceptions are thought to explain the reasons of the CD tendency of women.

Conclusion

It was found that most of the women who had a CD do not find VD as old-fashioned. It was also found that although more than half of participants believed that every woman has the potential for VD, and that VD should be preferred unless there is a CD indication; they found CD safer and easier

and VD painful; the decision of whether to elect CD should not be made by the obstetricians.

Implications for practice

Pregnancies were detected to expect advice from a nurse/midwife on postnatal care and training programs about delivery preparation. Attending prenatal classes more widely available, completion of delivery without unnecessary medical interruptions, reduction of anxiety and completion of delivery process with more positive experience would reduce the number of elective CD. Midwives and nurses have a central role in informing parents and helping them make the appropriate choice of birth methods. Women expect advice from a nurse/midwife on postnatal care and

training programs about delivery preparation.

REFERENCES

- Allen M, O'Connell C, Liston R, Baskett T (2003). Maternal morbidity associated with cesarean delivery without labor compared with spontaneous onset of labor at term. *Am. Coll. Obstetr. Gynecol.*, 102: 477-482.
- Chong E, Mongelli M (2003). Attitudes of Singapore women toward cesarean and vaginal Deliveries. *Inter. J. Gynecol. Obstetr.*, 80: 189-194.
- Dodd J, Pearce E, Crowther C (2004). Women's experiences and preferences following CD birth. *Australia. New. Zeland. J. Obstetr. Gynaecol.*, 44: 521-524.
- Dodwell M (2002). Should women have the right to a clinically unnecessary CD section?. *Midwifery Digest*, 12(2): 274-277.
- Fenwick J, Gamble J, Staff L, Creedy D, Bayes S (2008). Why do women request CD section in a normal, healthy first pregnancy?. *Midwifery*, Dec. 29. (Epub ahead of print) <http://www.nCdi.nlm.nih.gov/pubmed/19117644> on 30 July 2009
- Fenwick J, Gamble J, Hauck Y (2006). Reframing birth: a consequence of cesarean section. *J. Adv. Nurs.*, 56(2): 121-132.
- Gamble J, Creedy D (2001). Women's preference for a cesarean section: incidence and associated factors. *Birth*, 28: 101-110.
- Güngör Đ, Gökyildiz , Nahcivan N (2004). Opinions of women about childbirth who had had cesarean delivery and problems experienced in early postpartum period. *Istanbul University Florence Nightingale Nurs. Coll. J.*, 13(53): 185-197.
- Hopkins K (2000). Are Brazilian women really choosing to deliver by cesarean?. *Soc. Sci. Med.*, 51: 725-740.
- Hopkins K, Amaral E (2005). The role of nonclinical factors in cesarean section rates in Brazil. Princeton University: <http://paa2005.princeton.edu/download.aspx?submissionId=50741#search=%22the%20role%20of%20nonclinical%20factors%20in%20cesarean%20section%22> on 23 August 2010.
- Kiran T, Jayawickrama N (2002). Who is responsible for the rising section rate?. *J. Obstetr. Gynaecol.*, 22(4): 363-365.
- Lawrie TA, Jager M, Hofmeyr GJ (2001). High cesarean section rates for pregnant medical practitioners in South Africa. *Int. J. Gynecol. Obstetr.*, 72: 71-73.
- Lee S, Khang Y, Lee M (2004). Women's attitudes toward mode of delivery in South Korea: a society with high cesarean section rates. *Birth*, 31(2): 108-116.
- Lin H, Sheen T, Tang C, Kao S (2004). Association between maternal age and the likelihood of a cesarean section: a population-based multivariate logistic regression analysis. *Acta Obstetr. Gynecol. Scand.*, 83: 1178-1183.
- National Institutes of Health State of the Science Conference Statement. (2006). Cesarean delivery on maternal request. *Obstetric. Gynecol.*, 107(6): 1386-1397.
- Salomonsson B, Wijma K, Alehagen S (2008). Swedish midwives' perceptions of fear of childbirth. *Midwifery* Sep 5. (Epub ahead of print) <http://www.nCdi.nlm.nih.gov/sites/entrez> on 30 July 2009
- ahin NH, Güngör Đ, Sömek A (2007). Determination of women's opinions about methods of childbirth and early postpartum problems. *Obstetr. Gynecol.*, 21(4): 197-204.
- Terhaar M (2005). The decision for cesarean birth. *J. Nurse. Pract.*, 1: 141-147.
- Wiklund I (2007). CD section on maternal request. Unpublished doctoral thesis, Karolinska Institutet. Stockholm Sweden.
- Walker R, Turnbull D, Wilkinson C (2004). Increasing cesarean section rates: exploring the role of culture in an Australian community. *Birth*, 31: 117-124.
- Wang H, Chung U, Sung M, Wu S (2006). Development of a web-based child birth education program for vaginal birth after c-section (VBAC) mothers. *J. Nurs. Res.*, 14(1): 1-8.