



Unique Journal of Medical and Dental Sciences

Available online: www.ujconline.net

Research Article

THE REASONS FOR CHOOSING CESAREAN SECTION AS THE DELIVERY METHOD BY THE PREGNANT WOMEN IN THE SOUTHWEST OF IRAN, 2013

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Received: 01-03-2014; Revised: 30-03-2014; Accepted: 20-04-2014

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ABSTRACT

Background and Objective: The use of cesarean section is limited and obvious. It is accompanied by complications and serious dangers for women and newborn. One of the ways of reducing of the number of cesarean is to recognize the reasons of tendency of women toward cesarean; therefore the present study is done to find reasons for choosing cesarean by pregnant women who referred to medical centers and its relation with their knowledge and attitude.

Materials and Methods: In this analytical descriptive study, 306 pregnant women who are not previous cesarean history and without medical reason choose cesarean as preferable delivery method were interviewed in health centers in Jahrom. The questionnaire included items of demographic information, midwifery history, knowledge about advantages and disadvantages of cesarean section, attitude about cesarean and some of the reasons choosing cesarean by them. Spss software, descriptive and analytical statistics (Chi square and Fisher exact test) were used for statistical analysis.

Results: The view of pregnant women about the reasons of choosing cesarean as follows: fetus health (71.2%), fear of pain (67.3%), fear of vaginal delivery (58.2%), psychological burden and anxiety (55.9%), prevention of genital deformity and relaxation (49.7%) and prevention of genital rapture (47.4%). Knowledge and attitude were significantly associated with some reasons of selection cesarean included fear of vaginal exam ($p=0.004$, $p=0.008$) and fetus health ($p=0.02$, $p=0.01$) respectively.

Conclusion: By considering the related factors of reasons for choosing cesarean in low risk women, appropriate educational planning and effective consultation by health medical staffs is necessary.

Keywords: Cesarean Section, Pregnant Women, Cesarean Delivery, View Point, Reasons.

INTRODUCTION

Cesarean section is one of the chief worries by health pundit and health systems in developed and developing countries¹. Each service must be done properly, at low-cost with the least physical-psychological complications². The cesarean section rate has increased in most countries. Approximately one-third of births in the United States are now via Cesarean delivery. The increase has been observed to be among women of all ages and race, ethnicity, in every state and across all gestational ages. With a rate that has increased several fold in most countries, values of around 23.5%, 40%, 36%, 23.3% and 22.4% have been reported for the US, Chile, Brazil, Taiwan and Italy, respectively³. It is reported that cesarean section is 26%-60% and even 90% in private centers (2). Of course this prevalence varies in different regions. Cesarean section is reported to be about 9% in Southern provinces to

more than 50% in Northern provinces such as Mazandaran and Ghom⁴. The cesarean rate is reported 32.21% in Jahrom⁵. These rates are much higher than those suggested by the WHO, according to which a rate of around 15% has scientific and medical indications and values higher than this are considered as unnecessary or inappropriate¹. One of the problems the health systems have encountered is increasing health services and health care costs in the past few years. One of the chief reasons is unnecessary and inappropriate services. Results of studies show that about 10-40% of health care is unnecessary in the health establishment¹. Although selected cesarean section has profits such as reducing still births, birth palsy, bone fracture, planned delivery time and low delivery period, cesarean section has complications such as incision infection, pelvic infection, pulmonary infection, urinary tract infection, pulmonary emboli, venous thrombus, complications of anesthesia, ... and, the mortality and morbidity of mother

and newborn in cesarean section is more than normal delivery⁶⁻⁸. As well, studies show financial costs, stay period and bedridden mother in hospital, drug use, possibility of complications of drugs as compared with normal delivery are considerably more than cesarean section². Cesarean section also has dangers for newborn that can be premature birth, transient tachypnea, resistance pulmonary pressure damages such as bruising and other injuries. With regard to the high rate of cesarean section in Jahrom and the lack of studies related to reasons for cesarean section from the view point of pregnant women in Jahrom, this study was performed in order to investigate the reasons for choosing cesarean section by pregnant women and to determine related factors.

METHODS

In this analytical descriptive study, 306 pregnant primipara and multipara women who were referred to treatment –health centers of Jahrom in 36-38 weeks of pregnancy, for prenatal cares. The women had no previous history of cesarean section and chosen cesarean section as preferable delivery. The sampling method was convenient, because the number of participants was not determined; therefore, the centers were numbered accidentally. The investigators referred to one of the centers everyday and this method was continued until data had been collected and samples were taken from applicants from each center was finished.

After attendance, the investigators talked to pregnant women in the centers about the aim of the study and if the mothers had consented, they answered the following question: "If you could choose the way of delivery from these two choices what would you choose?" If they chose cesarean section the questionnaire was filled in by investigators for them. The questionnaire included 5 sections: The first section included 8 questions related to demographic data, the second section included 6 questions related to midwifery history, the third section included 23 questions related to the knowledge rate of participants related to advantages and disadvantages of cesarean section, the fourth one included 14 questions related to attitude of the participants about cesarean section and the fifth section included 16 questions related to some of the reasons participants had chosen cesarean section. The criteria of knowledge rate, the number of right answers that was given to questions of knowledge. Each question answered correctly was one point, therefore advantage of the knowledge spread from zero till 22 and was classified into 3 groups: low knowledge (0-7), moderate knowledge (8-14), good knowledge (15-22). The assessment of kind of attitude was done according to Likert scale and questions were designed so that the responders could voice their opinions according to different degrees, including complete agreement, agreement, no opinion, disagree, completely disagree. In this way, every question had advantage 0-4, that shows the different points for each answer. We considered positive or negative direction of the question in scoring. Therefore, the advantages of attitude had spread 0-56 and were classified into 3 groups: negative attitude (0-18), neutral (19-36) and positive (37-56). Thus the increasing points show pregnant woman had more tendencies toward cesarean delivery.

To ensure the validity of questionnaire, content validity was utilized and in order to determine reliability test-retest ($r=85\%$) was used. Spss software, descriptive and analytical statistics (chi square and Fisher exact test) were used for statistical analysis.

RESULTS

The mean age of the participants was 26.87 ± 26.5 . 35.3% had university education and 33% had secondary education. 89.9% were homemakers and 94.5% had one kind insurance. The mean of pregnancy number was 1.92 and most of the mothers (49.7%) had no history of delivery. 31% had abnormal child, 19.9% had abortion history onetime at least. 4.6% had history of death of their children and infertility history. 16.3% had history of unwanted pregnancy.

Most of the knowledge of the pregnant women (93.8%) about cesarean complications was related to pain after surgery, concerning cesarean advantages most knowledge (77.8%) was related to prevention of uterine prolapse, bladder prolapse and rectum prolapsed. Most of the participants had moderate knowledge and only 9.8% had good knowledge.

Most participants (47.7%) completely disagreed with the choice "Increasing cost of cesarean section toward normal delivery caused the mother to be loved by husband?" and 67.6% disagreed with the choice: "I "Cesarean section causes complications after surgery". In collecting the items of agree and completely agree, most of them (69%) was related to "cesarean section is more comfortable than uncomfortable."

In relation to reasons of choosing cesarean section, most of participants (71.2%) choose cesarean section because of fetus health, after that 67.3% fear of pain, 58.2% fear of vaginal exam, 55.9% psychological burden and anxiety, 49.7% genital deformity and flaccidity, 47.4% prevention of genital rapture. Chi square test showed significant relationship between unwanted pregnancy and pregnancy and suggestion of family or friends for choosing cesarean section ($p=0.001$). Moreover, there is significant relationship between unwanted pregnancy and suggestion of physician and midwife for choosing cesarean section ($p=0.01$). There was significant relationship between knowledge rate and reason for fear of vaginal delivery ($p=0.04$). There was significant relationship between attitude and reasons of fear of vaginal exam ($p=0.008$), psychological burden and anxiety ($p=0.001$), prevention from genital rapture ($p=0.01$), prevention from deformity and flaccidity in genital tract ($p=0.001$) and fetus health ($p=0.01$), so that positive attitude according to cesarean was accompanied by increases in choosing cesarean section.

DISCUSSION

In this survey most of mother's knowledge (93.8%) was related to cesarean section concerning pain after surgery, which is similar to the study results of Osis et al, Chu and Tai, Tabandeh and Kashani, Jamshidi Evanaki et al, Noorizadehetal (9,10,11,12,13). In this survey mother's knowledge rate concerning risks of mother was more fetal risks (9,14). Only 9.8% had good knowledge concerning advantages and disadvantages cesarean delivery. In a study by Noori et al that was done in Rasht, only 9.5% of pregnant

women had good knowledge concerning the advantages and disadvantages of cesarean section(15).In a study by Arjomandi et al that was done in Tehran, only 33.5% of pregnant women had appropriate or excellent knowledge according to the advantages and disadvantages of cesarean delivery(16).In Cleeton's study 15.4% of participants concerning the advantages and disadvantages of cesarean, as well as only 9.5% of participants of Jamshidi Evanaki's study had good knowledge(9,17).It is assumed that one of reasons for cesarean rate is unawareness and appropriate education deficit(4). Knowledge is the most important effective factor on health .It is an essential condition and the first step for learning appropriate behavior. Knowledge role in cesarean section is also important and Anderson concluded from his study that in order to decrease the prevalence of cesarean and its complications pregnant women's knowledge must be increased(18).According to Gamble and Creedi, may be health center workers represent disadvantages and risks of midwifery functions less for patients or this information was not available for mothers(14).Therefore, in order to decrease cesarean births it is necessary that for choosing cesarean section, treatment health centers educate pregnant women. Findings of the present study showed that in addition to agreement and completely agree cases, 69% selected "Cesarean delivery causes complications after surgery." Jahanson et al, and Jamshidi Evanaki also reported similar findings(9,19).69% agreed with "cesarean delivery causes complications after surgery" and only 14% had positive attitude to cesarean section. Tabandeh et al's results in a similar survey may be inappropriate society attitude and also physicians for choosing cesarean section as delivery methods(12).It is assumed that mothers selected cesarean because of fear of normal delivery and pain. Therefore, the role of consultation classes in prenatal period is important. These are performed by appropriate educational films and making mothers awareness of the delivery process and drug

and non drug methods, low pain. Painless normal delivery, preferably education concerning non drug methods for relieving pain by explanation of the advantages of cesarean, response to need resulting from fear of women for loss of society's inappropriate understanding toward normal delivery and positive attitude. One of the most important ways for decreasing cesarean is continuing education.

In this study it was shown that most of the participants selected cesarean section because of fetus health, fear of pain, fear of vaginal exam, psychological burden and anxiety, prevention of genital deformity and relaxation. In the study of Chu, Hasanpour, Jamshidi Evanaki, Mohammad pour, Tabandeh fear of delivery pain was the most common reason for choosing cesarean section.

In a study by Noorizadeh et al, the reason for choosing cesarean by pregnant women was respectively: fear of delivery pain (46.6%), physician suggestion (18.75), previous cesarean experience (18.2%), tubal ligation (67.7%), request of husband (3.3%), ability to plan (2.6%), fear of pelvic trauma (2%), affect on newborn intelligent (0.6%)(13).It is suggested that psychological relaxation be used during preparation class for delivery, also planning to relieve pain during prenatal delivery and normal delivery.

CONCLUSION

By considering escalating cesarean rate in Iran, it was concluded that awareness and knowledge about medical problems are not enough for women to be able to determine complications and advantages of modern medical sciences. Mothers need consultation regarding predelivery and necessary education during pregnancy. Women's psychological support during pregnancy can be an appropriate substitute for women who fear normal delivery and unpleasant experiences from previous delivery.

Table 1: Absolute and relative frequency distribution of knowledge of pregnant women applicants cesarean who referred to health treatment centers of Jahrom.

Knowledge questions	Number	Percent	Knowledge questions	Number	Percent
1-Bleeding	122	39.9	12-Increased hospitalization	278	90.8
2-Uterine infection	87	28.4	13- Possibility of intercourse after delivery late	165	53.9
3-Abdominal infection	107	35	14-Return to normal life late	225	73.5
4-Intraabdominal adhesion	70	22.9	15-Need for more care of newborn	255	83.3
5-Urinary tract trauma	72	23.5	16-Risk of placenta previa in next pregnancy	35	11.4
6-Vesicle obstruction by thrombus	41	13.4	17-Risk of uterine rapture in next pregnancy	45	14.2
7-Aspiration	36	11.8	18-Prevention of genital rapture	213	69.6
8-Pain after surgery	287	93.8	19-High risk respiration problem in newborn	68	22.2
9-Prevention of urine incontinency after delivery	225	73.5	20-High risk premature birth	59	19.3
10-Prevention from stool incontinency after delivery	227	74.2	21-High risk mortality of mother	56	18.3
11-Prevention from uterine prolapse,bladder and anus prolapse	238	77.8	22-Need for more help in care of newborn and breast feeding	81	26.5

Table 2: Absolute and relative frequency distribution of pregnant women cesarean applicants who referred to health treatment centers of Jahrom according to response to different attitude questions.

Attitude questions	Percent				
	Completely disagree	disagree	No opinion	agree	Completely agree
1-Cesarean is more comfortable than normal delivery generally.	2.3	24.8	3.9	25.2	43.8
2-Cesarean causes more intelligence of infant.	2.9	47.7	20.9	25.8	2.4
3-Cesarean causes complications after surgery.	1	17.6	4.2	67.6	9.2
4-Cesarean causes abdominal deformity.	1.6	25.8	6.2	58.5	6.9
5-A person who selects cesarean section belongs to a higher social class.	23.5	44.8	4.9	20.9	5.2
6-Increasing cost of cesarean section toward normal delivery causes a wife to be more loved by her husband.	56.2	26.8	7.2	8.2	25
7-Cesarean section prevents still birth.	3.9	36.9	9.8	44.8	4.6
8-Since my mother,sister and friends are content with Cesarean section,it is a good way for delivery.	24.8	45.8	1.6	17	10.5
9-Caring for patients with Cesarean section is better than normal delivery.	6.5	37.3	9.2	38.2	8.2
10-Inproper encounters with staff of maternity hospital during suffering pain causes a tendency to cesarean section.	14.1	44.4	2	17.6	21.6
11-Inproper encounter with staff of maternity hospital during delivery causes a tendency to cesarean section.	14.4	44.8	1.6	16.7	21.6
12-It is better that I use cesarean section because I have insurance	43.8	44.8	3.3	7.2	0.7
13-Cesarean section is a modern way for delivery.	15.7	47.7	4.6	30.1	1.6
14-Cesarean is an abnormal way for delivery.	8.5	38.6	10.8	40.5	1

Table 3:Absolute and relative frequency distribution of pregnant women cesarean applicants who referred to health treatment centers of Jahrom based on some reasons they chose cesarean section.

Reasons of choosing cesarean		Number	Percent
A. Fear of delivery	1-Fear of pain	206	67.3
	2-Fear of vaginal exam	178	58.2
	3-Unpleasant experience from normal delivery	32	10.5
	4-Psychological burden and anxiety	171	55.9
B. Mother health	5-Prevention of genital rapture	145	47.4
	6-Prevent genital deformity and flaccidity	152	49.7
C. Fetus health	7- Fetus health	218	71.2
D. Suggestion	8-Husband's suggestion	55	18
	9-Family or friend suggestion	70	22.9
	10-Physician or Midwife suggestion	119	38.9
E. Tubal ligation	11-Tubal ligation	41	13.4
F. Other cases	12-Choice of delivery time	71	23.2
	13-Shorter delivery time	77	25.2
	14-Doesn't change quality of married relationship	59	19.3

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Source of support: Nil, Conflict of interest: None Declared