

**FACTORS ASSOCIATED WITH CESAREAN SECTION SELECTION AMONG PREGNANT WOMEN RUNNING HEAD:
CESAREAN SECTION**

Shideh rafati¹, fatemeh mashayekhi², fooziyeh rafati², roghayeh ezati rad³, motahareh pilevarzadeh²

¹*Social Determinant in Health promotion Research Center, Hormozgan University of Medical Sciences, Bandar abbas, Iran*

²*School of Nursing, Jiroft University of Medical Sciences, Jiroft, Iran*

³*Student Research Committee, Hormozgan University of Medical Sciences, Bandar Abbas, Iran*

Corresponding author: fooziyeh rafati

Fax number: 03482318084

Telephone number:09133489902

Email address: foozieh1384@yahoo.com

ABSTRACT: Although Caesarean section as a way to savior both mother and child has been accepted to an emergency, but due to the increase in our country, cesarean deleterious consequences such as infectious diseases, anesthesia complications et cetera in recent years, could be a threat to the health of the mother, the child and the family be considered. The aim of this study was to investigate factors associated with cesarean delivery choice among pregnant women living in the city of Jiroft is selected. Across-sectional study on 145 pregnant women attending public and private medical centers in Jiroft is done. Data collection instrument was a questionnaire designed by the researchers to confirm the validity and reliability using Cronbach's alpha coefficient that 84% was observed. Data was analyzed by test Logistic regression (p-value=0.05). The mean age of study participants was 34 ± 4 years, 75% of the women in the study, cesarean delivery were chosen as the best method. Most participants in the study were between 5 and 7 months pregnant (35.25) and experienced a first pregnancy (44.1%). The results of logistic regression showed that the location of prenatal care, abortion, economic status, place of birth, family history of cesarean delivery, previous cesarean were significantly related to cesarean choice. **Conclusion:** Because of the high percentage (75%) of participants in this study had a cesarean section as the mode selected, Seems to Authorities are required to note that public education in the community and raise awareness among pregnant women and their partners to the delivery methods, to solve problems and develop outcomes of pregnancy by normal delivery.

Keyword: caesarean section, pregnancy, women

INTRODUCTION

Delivery can be known as one of the most interesting occurrences in woman kind life (acquiring maternal identity), and also a tense reality whose routine sometimes will be in trouble and infeasible to operate through current method due to medical causes and the prevention of risks which threaten baby and mother health, therefore caesarean can be occurred as an essential process in mentioned conditions (1). It is expected in regard to the introduction, caesarean has been used in a few characterized cases and its rate does not exceed from a certain level. But today, caesarean rate is reported higher than the acceptable level in our country (2). Today, caesarean rate is almost 20 -25% in Canada (3). 21% in England, 14.2% in Scotland, 10.7% in Sweden (4). And almost 10% in united Arabic emirates (5). Among these countries Iran has allocated high statistics of caesarean. According to worldwide health organization's report in 2004, caesarean is includes 35% of total deliveries (6). caesarean rate has reached 42.3% in Iran in

1385(7). In 1388, 50 - 65% of deliveries have been in the form of caesarean in Iran (8). while caesarean has been recognized appropriate, acceptable and natural up to fifteen percent by worldwide health organization (who) (9). it is worth mentioning that, in Iran almost 40% of caesareans are selected and don't occur in necessity, but it is selected by mother request and without clinical causes as the predominant method of delivery (10). In the study among 600 pregnant women by Majid Movahed, et al in shiraz, the following items are reported: marriage age, birth place, economic status, pregnancy frequencies, former delivery, infertility history, care place in pregnancy periods, caesarean history in family, attitude to caesarean by using multivariate regression as effective factors to select caesarean (2). according to investigations done by Ali Farzan et.al, in private and public hospitals in Esfahan, 73% of mothers had been used caesarean method in their deliveries. Most caesarean mothers were in the first experience of delivery. The mothers tended to refer to private hospitals for caesarean

rather than public hospitals (11). In the study of Fereshteh Zamani , et.al, in Ahwaz, the results indicated that women can be propelled into natural delivery by increasing their perception of their own ability and confronting the impediments like delivery pain(12).In study done by Asghar Mohammad poor Asl , et.al which 45.6% of women preferred caesarean, caesarean delivery were reported more in private hospitals and women with high educational level and high socio-economic class(13).In study done by Nourizadeh ,et.al among 450 pregnant women in marand,31.1% of women selected caesarean delivery, there was meaningful relation between having caesarean history, the place to refer for controlling the pregnancy and selecting delivery kind. Three major reasons to choose caesarean included fear of delivery pain with 47.6% , physician suggestion with 18.7% and the experience of former caesarean with 18.2% respectively(14).In respect to detrimental effects and consequences of caesarean such as post – delivery depression, infectious diseases, complications of anesthesia, respiratory problems for baby and fertility decrease , this statistics and drastic increase of caesarean can be accounted as a risk for baby and mother health , family and lastly society , and appeared to one of the pitfalls in health domain(2).In regard with studies in this field , the most important reasons of choosing caesarean by mothers consist of : fear of mother from natural delivery pain(4),wrong beliefs about caesarean as the best method, unawareness of its harmful effects, negative attitude to natural delivery and attributing baseless gossips to it(5).the aim of this study, surveying relevant factors with caesarean section selection among pregnant women living in Jiroft in 2013.

METHOD

The current descriptive – analytical study is cross – sectional. The population includes all pregnant women living in Jiroft which referring to health centers in their city or the office of obstetricians. According to reports from Jiroft health network in 1390, the number of people has been 2600. In respect to large population and unavailability to the total population and also time and cost saving, sample size is estimated at least 144 people in the study regarding to similar results (2). Cluster sampling method is used in this investigation, so that all medical centers including private and public are indexed on a list and 4 public medical centers and 2 private offices among them are selected as cluster in a simple random way, the desirable sample is selected proportional to reference rate to desirable cluster.

Data collection is performed by a self – designed questionnaire. To do this study in order to determine validity, the questionnaire is delivered to some masters and specialists, and is confirmed after evaluating and applying their standpoint. Reliability of this questionnaire is seen 84% using cronbach-s alpha coefficient after eliminating a question, that is indicative of its acceptable reliability . dependent variable was to choose delivery method, and independent variables were individual age, marriage age, education level, spouse education level , job, birth place ,income level, pregnancy frequencies, sterility history , abortion history, stillbirth history, care place in pregnancy period , caesarean history in family, former delivery history, information source of delivery method. Although sample size to this study was estimated 144 people, it was expected that some pregnant women might not perfectly fill in the questionnaire, and also in order to enhance confidence of sampling power , two auxiliary researchers were selected from treatment centers, and after justification and tacit consent from pregnant women referring to the centers, 200 questionnaires were distributed among them. The pregnant women answered the questions in absence of the interrogators . At the end, 173 questionnaires were returned, but because 28 questionnaires of those 173 cases had not been completed, lastly the researcher performed the study with 145 cases. The process of data after collection was described and posed in two levels using spss 19 software. In deductive statistics section, logistic regression is applied to control probable effects of confounding. It is considered as a significant level lower 0.05.

RESULT

Results shows that the average age of responders is 34 and the average of their marriage age is 27. Most participants in the study had bachelor's degree (57.2%). 60% of studied individuals were clerks. Most of them were born in cities (66.9%). Most individuals believed that they belonged to the middle class of society. Most responders were 5-7 month pregnant. 51.7% of studied women did not have delivery experience. 7.6% and 40.7% of them had experienced natural and cesarean delivery in their previous delivery respectively. 91.7% of whole expressed that they had no infertility history. 97.2% of them expressed that they had no still birth history. 66.9% of whole refused abortion history. 96.6% of total had been witness of caesarean among their family. In relation to getting information about delivery method (friends and relatives) devote the highest percent (52.4%) to themselves. In deductive

statistics section, it is characterized by regression logistic test that selection of caesarean history among relatives and former delivery (table 2). In respect to results in table2. We observe that pregnant women who refer to private centers may use caesarean 4 times more than individuals who use public (government) services in this period. The chance to choose caesarean in pregnant women from high and middle – class of society to women with poor economic status is more than 26 and 31 times respectively . Birth place is another effective variable which enters the equation. In this variable, people born in village are considered as reference group. As we observed table 2,

Individuals born in city have to choose caesarean 2.4 times more than those who were born in village. The probability of caesarean selection in people with caesarean history in their family is 6 times more than others. The probability of caesarean selection in the pregnancy for women using caesarean in their previous delivery is 8 times more than those not having delivery yet. Also, no significant effect has been found on selection of recent delivery method for women who had used natural delivery method in their previous pregnancy compared to women with no delivery.

Table 1. Abundance of studied pregnant women corresponding to information source about selective delivery type .

variable	Frequency	Percent	Valid Percent	Cumulative percent
Friends and Family	76	52.4	52.4	52.4
Radio and TV	14	9.7	9.7	62.1
Internet	9	6.2	6.2	68.3
Book	30	20.7	20.7	89
Other	16	11	11	100
Total	145	100	100	

Table 2. Results from logistic regression.

Independent variable		Beta coefficient	Confidence level	odds ratio
Place of Prenatal Care	Public	0	-	1
	Private	0.617	0.041	4.14
History of abortion	No	0	-	1
	Yes	1.08	0.035	12.27
The economic situation	Low	0	-	1
	Medium	1.41	0.025	26.02
	Top	1.49	0.03	31.45
Birthplace/ Hometown	Village	0	-	1
	City	0.38	0.037	2.39
Family history of caesarean	No	0	-	1
	Yes	0.78	0.02	6.1
Previous delivery	No delivery	0	-	1
	Natural	0.14	0.14	0.71
	Caesarean	0.92	0	8.4

DISCUSSION

Results indicate that caesarean selection is significantly related to care place in pregnancy period , abortion history , economic status , birth place , caesarean history in relatives and former delivery. In

this study, it is perceived that more than 75 percent of women have chosen caesarean method as the best method.

We do not intend to point out just the result of some former studies compatible with some recent ones. In study done by ali farzan , et .al , 73.6% of pregnant

women , had give birth to a child in caesarean method(11).

According to different studies, women prefer caesarean as follows; caesarean rate in damghan is 51.4% in study done by Bahonar and et . al (15), caesarean rate is 47.2% in study done by Movahed and et.al (2), caesarean rate is 33.1% in study done by nourizadeh and et.al (14), 31.25% in study done by negahban (4) and also 45.6% in Mohamad pour asl study (13). But results obtained from the survey performed by chung and et.al in Singapore showed that just 3.7% of women prefer caesarean as the superior delivery (16). Also in a study done by geraham ane , et. al in Scotland , just 7% of women chose caesarean(17). In a study in 2011 in Lithuania, 14.9% of had preferred caesarean delivery (18). I study among 1506 pregnant women in 2010 in Sweden , 7.6% and 7% of women had preferred caesarean in the middle and end of pregnancy period respectively(19).

According to study in 2009 in Norway based on its findings, only 10% of participant women in the study selected caesarean as the best delivery method (20). Therefore, the recent study and the caesarean statistics is reflective in Iran in comparison with these societies. Perhaps, the causes of this difference can be attributed to function method of health – therapeutic systems, socio – cultural status and pregnant women knowledge in these societies. And perhaps it is concerned with possibilities and facilities existing in health sectors. So, dissatisfaction of performed services by health centers like staffs deal and attitude, infrastructural possibilities and ..., Can be as reasons for these differences too.

In the study, we concluded that there is a significant relation between birthday and delivery kind selection, in other words, caesarean selection as a superior method among the woman born in the city is higher than the one born in village following modern life styles in the urbans might be the reason of this discrepancy. Also economic status is seen as an effective variable on caesarean method selection , which these results are similar to results obtained from movahed and et al(2) , mohamad pour asl and et al (13) and zamani alaviche in ahvaz (12).therefore we concluded that higher economic class welcome caesarean better . Other studies have underlined in the role of urban life and also economic class in growing caesarean rate (21,22). Findings also show that there is a significant relevance between caesarean history in family and caesarean selection , and also it is found a considerable relation between care place in pregnancy period and caesarean selection. The results of studies done by Mohamad beigi (23), Negahban (4) and Faramarzi (24)

emphasize this outcome In the study done by Movahed , it is expressed that as caesarean is more costly in comparison with natural delivery, so , obstetricians lean toward caesarean move (2). The ability to predict and to spend less time to operate caesarean are other advantages.

It can be said in respect to the maternal that physician has further and more direct effect on pregnant person and has further contribution for delivery method selection. There is a significant relation between abortion history and caesarean selection in recent study that associates with Negahban's study (4).

CONCLUSION

As the high percent of participants in the study had chosen caesarean method as a superior method (75%), it seems that factors such as: fear, physician suggestion, prestige, fashion are effective on the selection. (so, related authorities should take this point into account to fix the problems and to expand natural delivery by general training in society level and to increase Pregnant's knowledge and even their spouses to delivery method).

RECOMMENDATION AND SUGGESTION

Although caesarean is accepted as a saving operation for mother and baby (newborn) in emergency situations, because of an irregular increase in this delivery method in our country , it is suggested that related authorities in medical colleges specially health department and centers try to solve the problem in order to encourage pregnant mothers specially nulliparous mother to natural delivery so that they Won't suffer from the effects arising from caesarean section.

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