

Investigation of The Socio-cultural Factors Affecting the Women's Tendency Toward Cesarean Section in the Hospitals of Ilam, Iran

SAFIEH YOUSEFI¹, SEYED MOHAMMAD SAYED MIRZAEI²,
AFRA KHOSRAVI^{3*} and HOSSEINALI KHAZAEI⁴

^{1,2}Islamic Azad University, Tehran Research and Science Branch), Tahereh Mirsardoo

³Department of Immunology, Faculty of Medicine, Ilam University of Medical Sciences, Ilam, Iran.

⁴Department of Immunology, Faculty of Medicine, Zahedan University of Medical Sciences, Zahedan, Iran.

DOI: <http://dx.doi.org/10.13005/bpj/405>

(Received: October 10, 2013; Accepted: November 19, 2013)

ABSTRACT

Cesarean surgery is a small incision in the lower part of the abdomen for the embryo and placenta to exit. Nowadays, cesarean section is one of the most common modes of delivery particularly in developing countries. Since keeping in shape, family size, and fear from natural delivery are considered as the reasons for tendency toward cesarean section, the present study aimed to investigate the socio-cultural factors affecting the women's tendency toward this method. The statistical population included all the women referring to the hospitals for delivery and the sample included 200 women referring to the hospitals and childbirth centers. The study sample was selected using the Cochran's formula. Regression model was used in order to determine the correlation between the study variables. Besides, chi-square test was utilized for determining the effect of the dependent variable on the independent variable. According to the results, 64.5% of the study women had no history of cesarean surgery and 32.5% had a high tendency toward cesarean section. In addition, 34.5% had to undergo cesarean section and 50% had a low tendency toward this surgery. A significant relationship was observed between selection of cesarean delivery and the physicians' persuasion, keeping in shape, cesarean complications, lack of knowledge about the benefits of natural delivery, and socio-economic status ($P < 0.05$). A large number of women referring to the childbirth centers of Ilam tend to select cesarean delivery which is mostly due to the lack of using pain relief methods, the physicians' persuasion, and the women's belief in keeping in shape.

Key words: Cesarean, Natural delivery, Pregnant women, Women's tendency, Socio-cultural factors.

INTRODUCTION

Women comprise half of the society's population. Health and treatment is one of the main indexes of social welfare and becoming a mother is important not only considering delivery and its related care, but also regarding nurturing healthy children. Considering the indications of cesarean section, such as the problems for both the mother and the fetus, cesarean surgery has economic effects on the family. Of course, social factors play

a major role in selecting cesarean section. Thus, families, media, pre-marriage trainings, training the physicians, and new medical methods have great impacts on the women's selection of natural vaginal delivery.

Delivery is defined as the end of the pregnancy period and is performed through either the natural route using forceps or vacuum or cesarean section (Khalilipour, 2008: 78).

According to the results of DHS in 2000, 35% of all the deliveries in Iran were performed through the cesarean section. This measure was reported as 42% in urban and 22% in rural areas. However, according to World Health Organization (WHO), only 5-15% of the deliveries should be performed through cesarean surgery.

Cesarean has turned into a serious problem in Ilam, Iran; such a way that half of women prefer to use this method. In general, in a small city like Ilam, the socio-cultural factors are more effective in directing the women toward cesarean section. In addition to imposing high costs, cesarean surgery causes complications, such as infection, bleeding, and respiratory problems for the infants, which have reached 88% in private hospitals of Ilam (Miraj, 2009).

According to the official statistics provided by the medical deputy of some organizations, the rate of cesarean section has been reported as 49% in Ilam which has the first rank in the country. The high rate of cesarean delivery is an alarm for the authorities and shows that the women do not have enough knowledge about the risks of cesarean section.

Overall, out of the 8157 deliveries performed in this province in 2009, 3934 ones were through the cesarean surgery. The global standard of cesarean section has been reported as 10-15%, while the rate of cesarean delivery in Iran is about 40-60% (Niksalehi, 2006).

Importance of the research

The gradual increase in the rate of cesarean delivery in Iran, particularly Ilam, has become a social phenomenon. Considering the statistics mentioned above, it is questionable which social and cultural factors have been more effective in increasing the women's tendency toward cesarean delivery.

In spite of the trainings provided for the pregnant women in health and treatment centers of Ilam, medical factors lead to cesarean delivery in only a small number of cases. Therefore, we need to investigate why women still prefer the cesarean delivery. Moreover, in more than 75% of the cases,

the cesarean delivery is elective and we need to determine whether social and cultural factors are effective in this issue or not.

It should be mentioned that novel medical methods, such as painless delivery, are now being performed in the hospitals; however, the rate of cesarean delivery is still high in this province.

MATERIALS AND METHODS

The present descriptive study was conducted on 200 pregnant women in the last weeks of gestation. The study sample was selected through simple random sampling and Cochran's formula was used in order to determine the sample size.

$$n = \frac{N^2 p q}{N^2 + t^2 p q}$$

Where q is the probability of failure and p is the probability of incidence and, consequently, the sum of p and q is equal to 1. Considering the maximum error of 0.5 and t=1.96, d is the desirable probable precision which is considered as 0.05 here. Also, N shows the intended statistical community and is equal to 417. Thus, a 200-subject sample size was determined for the study.

The study data were gathered using a questionnaire whose validity was determined through content validity method and its reliability was assessed through the test-retest method. In doing so, 30 women in the third trimester of pregnancy completed the questionnaire. One week later, the questionnaire was completed again by the same group of women, the correlation between the data was assessed, and \pm was obtained as 0.747. Afterwards, the questionnaires were coded and SPSS was used for statistically analyzing the data. Chi-square, regression model, and Spearman correlation coefficient were used in order to determine the relationship among the variables. In this study, the dependent variable was the women's tendency toward cesarean delivery. On the other hand, the independent variables were the women's knowledge about the benefits of natural delivery and the disadvantages of cesarean surgery, fear from labor pain, tendency to reduce the family size,

Table 1: Cronbach's alpha coefficient of the questionnaire

| Variable | Range | Index | Cronbach's alpha coefficient | Variable's measurement level |
|--|------------|-------------|------------------------------|------------------------------|
| 1 Physicians' persuasion | 21.1-21.4 | Qualitative | 71% | Ordinal |
| 2 Keeping in shape | 25.1-25.4 | Qualitative | 71% | Ordinal |
| 3 Knowledge about the benefits of natural delivery | 30.1-30.6 | Qualitative | 84% | Ordinal |
| 4 Knowledge about the complications of cesarean delivery | 31.1-31.11 | Qualitative | 73% | Ordinal |

physicians' persuasion, tendency to keep in shape, and socio-economic status.

5. the tendency toward cesarean section.
 Physicians' persuasion affects the tendency toward cesarean delivery.
6. Tendency to keep in shape is effective in the tendency toward cesarean delivery.
7. Women's socio-economic status affects their tendency toward cesarean delivery.

Research hypotheses

1. Women's lack of knowledge about the benefits of natural vaginal delivery affects the selection of cesarean section.
2. Women's lack of knowledge about the complications of cesarean affects the selection of this delivery mode.
3. Fear from labor pain is effective in the tendency toward cesarean delivery.
4. Tendency to decrease the family size affects

RESULTS

In the present study, the women's mean age, mean weight, and mean height was 32 years, 80 kg, and 163 cm, respectively. In addition, 51.5%

Table 2. Regression coefficients

| | Estimation of the parameters of non-standardized regression model of standardized Regression coefficients | | Estimation of the parameters regression Partial correlation coefficients | Statistics model | Significance level |
|--|---|-------|--|------------------|--------------------|
| Interaction of the factors | 0.540 | 0.681 | | 0.793 | 0.429 |
| Income | 0.170 | 0.172 | 0.067 | 0.988 | 0.324 |
| Husband's income | 0.057 | 0.116 | 0.037 | 0.489 | 0.626 |
| Employment | 0.577 | 0.235 | 0.185 | 2.456 | 0.015 |
| Physicians' persuasion | 0.197 | 0.061 | 0.215 | 3.214 | 0.002 |
| Women's education | 0.226 | 0.110 | 0.157 | 2.052 | 0.042 |
| Husband's education | 0.47 | 0.109 | 0.034 | 0.428 | 0.669 |
| Knowledge about the benefits of natural delivery | -0.174 | 0.104 | -0.114 | -1.670 | 0.097 |
| Knowledge about the complications of cesarean | -0.013 | 0.088 | -0.011 | -0.152 | 0.880 |
| Keeping in shape | 0.116 | 0.070 | 0.112 | 1.671 | 0.096 |

of the study subjects were primiparous women. Besides, 30.5%, 10.5%, and 7.5% of the women had the history of 2, 3, and 4-8 pregnancies, respectively. Moreover, 97% of the participants had insurance among whom, 47.5% were covered by Medical Services Insurance Organization. Furthermore, 55.5% of the subjects had diploma and A.D. degrees, 24% had under diploma degrees, 15.5% had Bachelor's degrees, and 1.5% had Master's or higher degrees.

According to the results, 83.5% of the women were homemakers, while 8.5% were employed. Moreover, 95%, 3%, 1%, and 1% of the subjects earned between 0 and 5, 5-10, 10-15, and more than 15 million Rials, respectively. Furthermore, 52.5% of the participants had rented houses, 18.5%

lived in their own houses, 6% lived in organizational houses, and 7% had inherited houses.

In this study, 47% of the women had a history of delivery, while 53% had no history of delivery. In addition, 35.5% of the participants had a history of cesarean delivery, while 64.5% did not. Besides, 34% of the women had to select cesarean surgery to a great extent, 36% had to select cesarean to a little extent, and 29.5% had to select cesarean to some extent. Also, 28% of the women tended to select cesarean delivery according to the physician's recommendation. Besides, 35% had a little tendency to have cesarean delivery even by the physician's suggestion and 37% were to some extent willing to have cesarean surgery following the physician's suggestion.

Table 3: To what extent one can select cesarean delivery by the physician's suggestion

| Physician's persuasion for cesarean delivery | Frequency | Percent | Cumulative percentage |
|--|-----------|---------|-----------------------|
| Very little | 33 | 16.5 | 16.5 |
| Little | 37 | 18.5 | 35.0 |
| To some extent | 74 | 37.0 | 72.0 |
| Much | 38 | 19.0 | 91.0 |
| Too much | 18 | 9.0 | 100.0 |
| Total | 200 | 100.0 | |

DISCUSSION

The results of the present study showed the most important reason for the tendency toward cesarean delivery to be fear from natural delivery followed by not using the pain relief methods. In fact, midwives are not highly skillful in using these methods. Therefore, there is a significant relationship between fear from delivery and tendency toward cesarean section, which is in line with the study conducted by Tavassoli in 1996. That study entitled "The effect of selective training of pregnant women" showed that by increasing the level of knowledge, a positive attitude toward natural delivery was achieved. Also, as the level of education increased, the rate of cesarean delivery increased, as well (Tavassoli, 1996). The more the women are informed about the advantages of natural delivery and complications

of cesarean section, the less the rate of cesarean surgery will be; therefore, there is a significant relationship between the women's knowledge and delivery benefits. In natural vaginal delivery, women can return to normal life earlier and the probability of movement of blood clots which can be observed after cesarean surgery is reduced, as well (Williams: 558). This is in agreement with the study conducted by Seyed Noori in 2004 (Seyed Noori, 2004). In that study which was entitled "Investigation of the reasons for pregnant women's selection of cesarean delivery", mental pressure, anxiety, preventing the reproductive system rupture, fetus' health, and fear from pain were shown as the reasons for selection of cesarean delivery (Seyed Noori, 2004).

In the current study, a significant negative relationship was found between reduction of family

size and cesarean delivery; the less the number of children, the more the tendency toward cesarean delivery.

The findings of the present study revealed a significant relationship between the physicians' persuasion and the tendency toward cesarean. In fact, the physicians prefer the cesarean delivery due to its higher cost and less required time. This finding is in line with that of the study conducted by Menrad in the U.S. in 1990 which showed that the physicians changed the patients' motivation and persuaded them toward cesarean delivery (Menrad, 1990).

In this study, a significant relationship was observed between keeping in shape and tendency toward cesarean delivery. Prolapsed bladder followed by urinary incontinence is among the short-term consequences of delivery (Asadi Beigi, 2010). Despite the health risks as well as the wide advertisements of the media, the women's sensitivity to their body features prevents them from being indifferent to the new criteria of beauty (Ahmadnia: 14). Nowadays, women in megacities, such as Tehran, prefer the natural vaginal delivery because they believe that their bodies will remain fit after this type of delivery. In Ilam, on the other hand, due to the culture of imitating the others, cesarean section is performed in order to keep in shape.

In this study, the women's socio-economic status affected their tendency toward cesarean delivery. Socio-economic status includes occupation, literacy, and income and differentiates the individuals from each other (Saroukhani, 1996). Thus, the people who pay more attention to their appearance are ready to pay any price for performing this surgery (Marmoot, 2008: 180). This is in line with the study conducted by Wen Wei Cai in Shanghai in 1998. That study which was entitled "The effect of mother's occupation and method of paying the hospital charges on cesarean" showed a significant relationship between the increase in cesarean delivery and complications of the pregnancy period, fetus' weight, mother's age, and mother's level of education. Also, cesarean delivery had increased more among the employed mothers (Wen Wei Cai, 1998).

Further more, Elizabeth conducted a study

in 2000 in order to determine the costs and benefits of cesarean delivery. That study showed that cesarean had dramatically increased in the U.S. during the past two years. Cesarean saves lives, but has risks, as well the most important of which are early birth and respiratory problems of the infant. Overall, various factors, such as the history of cesarean delivery, low birth weight, and socio-economic factors, affect making decision about performance of cesarean section. It has been estimated that almost half of the cesarean sections in the U.S. are unnecessary and their omission will save more than 1 billion dollars a year (Elizabeth, 2002).

Ryding performed a research on 33 women who had required elective cesarean section in Sweden in 1993. The reasons for elective cesarean section in that study included fear from labor pain and damage to the fetus in 28 and fear from perineal tear in 5 women. These subjects underwent consultation and psychotherapy by a psychoanalyst who was familiar with obstetrics and, at the end, 13 women selected natural delivery, while 19 ones chose the cesarean section (Ryding, 1993).

In Iran, a limited number of studies have been conducted on this issue and have not taken family size, physicians' persuasion, and attention to appearance into account. Thus, the present study investigated the tendency toward cesarean delivery by considering the women's and their husbands' education level as well as occupation.

A review of the theories on social identity shows that medical sociology is a good branch in sociology whose theories, such as those by Marx, Michel Foko, and Anthony Giddens, are highly weak.

Marx states that an individual cannot be completely separated from the category. S/he recognizes the difference between oneself and the others and thinks that one is not alone and others have the same destiny as s/he does. Therefore, the individuals in higher categories cannot stand suffering and can easily pay for cesarean surgery compared to those in lower categories. According to Marx, the individuals' life style, behavior, and attitude depend on their financial status and their attitude is affected by the category to which they belong (Solasi, 2001: 89).

Focko believes that human body can be manipulated and managed. In addition, an obedient body is the one which can be changed and completed. According to Focko, the major goal of medical knowledge is controlling and supervising the body focusing on sexual relationships and diseases (Focko, 1999: 171).

According to Antonie Gidenz, human body is not an instrument for descriptive actions and reactions; rather, it is a natural apparatus which should be cared for by its owner. This apparatus has sex and is the origin of many enjoyments as well as sufferings. At the beginning of life, humans cannot take care of themselves and should be cared for by the adults (Gidenz, 2006: 144).

CONCLUSION

The present study investigated the relationship between seven variables and the women's tendency toward cesarean delivery. The results revealed a significant inverse relationship between the women's knowledge about natural delivery and tendency toward cesarean section. As the women's knowledge about the advantages of natural vaginal delivery increased, the tendency toward cesarean surgery decreased.

Also, a significant inverse relationship was observed between the women's knowledge about the complications of cesarean section and the tendency toward this surgery. As the knowledge about the complications of cesarean section increased,

the tendency toward performing this surgery decreased.

Another factor which affected the tendency toward cesarean was fear from labor pain. The results showed that the more the fear from natural delivery, the more the tendency toward cesarean section. This is mainly due to the fact that the midwives in Ilam childbirth centers are not highly skillful in using pain relief methods during natural delivery. Furthermore, due to financial benefits, the physicians impose cesarean section on the patients. The cost of cesarean is very high in Iran and it should be performed only in emergency conditions, such as drop in fetal heart rate, woman's history of cesarean delivery, and placental abruption (Kaningham: 548). Nevertheless, cultural factors, such as imitation, are highly apparent among the pregnant women in Ilam.

Nowadays, women in megacities, such as Tehran, prefer natural vaginal delivery in order to keep in shape. In Ilam, on the other hand, due to the culture of imitating the others, cesarean section is performed in order to keep fit.

Overall, the study results showed that the women's tendency toward cesarean delivery was affected by the number of pregnancies, physicians' persuasion, fear from natural delivery, socio-economic status, knowledge of cesarean complications, keeping in shape, and knowledge of natural delivery.

REFERENCES

1. Number of cesarean deliveries should be monthly or weekly checked in the hospitals and plans be considered for admission of the patients for natural delivery.
2. Informing the women about the complications of cesarean delivery can reduce their tendency toward this surgery. For instance, both the mother's and the infant's lives might be at risk during surgery, respiratory arrest or uterine artery embolization might happen to the mother, and the infant might develop respiratory problems.
3. The physicians and midwives should be trained regarding the methods of non-painful delivery. They should also be encouraged or punished for how they treat the patients. In addition, a special position should be considered for midwifery.
4. Insurance franchise should not be paid for non-necessary cesarean surgeries. For instance, the authorities can issue the insurance forms only for emergency cesarean surgeries.