

EVALUATION OF TENDENCY TO SELECTION TYPE OF DELIVERY OF LAST TRIMESTER PREGNANT WOMEN REFER TO GYN CLINIC OF YASUJ CITY ON 2017

H. M. Abad Nazir¹, A. H. Motlagh², M. A. Ghatee³, H. Nouradin^{*,4}

¹Associate professor of psychiatry, Social Determinants of Health Research Center, Yasuj University of medical sciences, Yasuj, Iran

²Assistant professor, Ph.D. in Env.Health, Social Determinants of Health Research Center, Yasuj University of Medical Sciences, Yasuj, Iran

³Cellular and molecular research center, Yasuj University of Medical Sciences, Yasuj, Iran

⁴Medical Engineering, Medical Engineering Department, University of Hakim Sabzevari, Sabzevar, Iran

Published online: 01 May 2018

ABSTRACT

Introduction: Due to the complications and risks of cesarean delivery, and on the other hand increasing rate of Cesarean section, Identification of factors influencing the choice of delivery method could affect control of the process. Therefore, the present study aims to assessment of the tendencies of pregnant women to delivery and the reasons for choosing it in the last trimester of pregnancy in the clinic of women in Yasuj in 2017.

Method of study: Data gathering tools based on the Yilmaz and associates questionnaire in 2013. The questionnaire has 17 questions. While observing ethical considerations referring to Yasuj women's Clinic. The questionnaire was provided to the samples and after a complete explanation of the purpose of the research details and how to respond to questions and getting consent, questionnaires were completed. The data collected were analyzed using the software SPSS. Data analysis was used from the central indicators (mean, middle, etc.) and logarithmic samplings of single-variable and multi-variable and chi-square. The significance level of .05 was considered.

Author Correspondence, e-mail: nazir.hashemi@gmail.com

doi: <http://dx.doi.org/10.4314/jfas.v10i2.39>



Findings: The findings of this study indicate that 16.8% of the samples were first pregnancy and 28.5% had CS and 54.8% had NVD. 91.8% of pregnancies were without any infertility treatment and 8.3 percent of pregnancies following infertility treatment. Variables data such as age, weight, number of children, number of deliveries, educational level, occupation, husband occupation, history of infertility treatment, information of cesarean section, and pregnancy after infertility treatment were not statistically significant. But data such as husband education Level (below diploma and illiterate), last delivery type, physician recommendation, husband recommendation and having information about type of delivery can affect the selection of type of delivery.

Conclusion: We conclude the major factors that effect on selection type of delivery were physician recommendation, husband recommendation, husband educational level, previous type of delivery and having information about NVD and CS. The major tendency toward CS was fear of pain of NVD. Perennial injury of NVD was one of the important cause of tendency toward CS. Therefore physicians, nurses and midwives have to give more information about NVD and CS to pregnant women and her husbands.

Key words: Cesarean section, normal vaginal delivery, pregnant women, third trimester

INTRODUCTION:

Childbirth is a natural or physiological mechanism and females had almost always apprehension about it. There is two method of delivery include Normal vaginal delivery (NVD) and cesarean section (CS). Each of it had advantages and disadvantages. Some of females had tendency toward NVD and others toward CS. Some of physician had tendency toward NVD and others toward CS (1). There is multi factor interfere to selection of NVD or CS. Occasionally in emergency cases: CS is the only method of delivery (2). The rate of CS is increasing in the world in the past decade, and this is included my country (Iran). Approximately 40% of delivery is CS in urban area and 22% in rural area (3). Black et al from England reported: the rate of CS was increased from 12.5% to 18.3% and NVD was decreased from 45% to 37% since 1990 to 1999 (4). Yilmaz et al from Turkey reported the main cause of selected NVD by mothers were safety of newborn, fast recovery after NVD, less pain and less injury. The main cause of selection of CS were pregnancy after infertility and the last pregnancy (5). Aminu et al from Bangladesh reported the main causes of selection of CS were difficulty about previous NVD (29.4%), fear of newborn respiratory distress (15.7%), deformity or nonsymmetrical in pelvic bone (10%) and pain of NVD (15%) (6). Chong et al from Singapore reported only 3.7% of pregnant women selected CS due to NVD

pain and fear of newborn respiratory distress (7). YoenLoek et al from Hong Kong reported 23% of pregnant women selected CS due to NVD pain, fear of injury of perennial area and less injury of newborn (8). Movahed et al from Shiraz (south of Iran) reported younger female, high education, history of previous CS, have a job and history of infertility had tendency toward CS (9). Behmanesh et al from Kermanshah (west of Iran) reported 61.5% of mothers selected CS due to fear of NVD pain, although 75% of mothers had no information about side effects of CS and 79% had no information about painless vaginal delivery (10). Bagheri et al from Kashan (east of Iran) reported the main cause of selection of CS was fear of NVD pain, so some of mothers selected NVD due to good experience of previous NVD (3). Atghaei et al from Kerman (southeast of Iran) reported 41.5% selected NVD, 45.5% painless NVD and 13% selected CS (11). Khosravi et al from Bejnoord (East of Iran) reported 25% of pregnant women selected CS. High socioeconomic, live in urban area, increased age of mothers, fetus weight more than 3500 grams and increased length of head had related to CS (12). Nourizade et al from Marand (Northwest of Iran) reported 13% of mothers selected CS and 87% selected NVD. Fear of pain (47.6%), recommendation of physician (18.7%) and previous CS had more related to selection of method of delivery (13). Rafati Et al from Jiroft (Southeast of Iran) 75% of pregnant women selected CS. The best source of selection of CS was closed family. The reason of this selection were past history of abortion, economic status and past history of CS (14).

METHOD AND MATERIALS

This study was done on 400 pregnant women (3rd trimester) referred to Shahid Mofateh GYN clinic of Yasuj city (South west of Iran) on first 3 months of 2018. Data gathering based on the Yilmaz and associates questionnaire on 2013. The questionnaire had 17 question. After complete explanation of the purpose of research and getting consent, the questionnaire was completed. The study was approved by the Yasuj Medical University ethics committee, and was performed in accordance with the Helsinki Declaration and subsequent revisions. Informed consents were obtained from the patients' legal guardians to enroll in the study. The data collected were analyzed by SPSS. Data analysis was used from the central indicators (Mean, middle, etc.) and logarithmic samplings of single-variable and multi-variable and chi-square. The significance level of 0.5 was considered.

RESULTS

This study was done on 400 pregnant women (3rd trimester) referred to Shahid Mofateh GYN clinic of Yasuj city (South west of Iran) on 2017.

18.5% had no child, 39.5% one child and 42% two or more children.

37.5% had high education, 40.8% diploma, 18% below diploma and 3.8% illiterate.

47.3% had husband with high education, 40.5% with diploma, 10.3% below diploma and 2% illiterate.

20.5% of pregnant women had a job and 79.5% had no any job.

38% of pregnant women had husband with governmental job, 53% nongovernmental job and 8.5% no any job.

9.3% had history of treatment of infertility and 90.7% no history of treatment of infertility.

16.8% had no history of delivery (first pregnancy), 28.5% had history of CS and 54.8% had history of NVD. 80% of delivery (CS or NVD) was done in governmental hospital and 4% in private hospital.

57% had tendency toward NVD and 43% had tendency toward CS.

13.5% had offer of NVD by physician and 9% by husband.

11% had offer of CS by physician and 8.3% by husband.

65.5% of NVD had global information about NVD and 34.5% had no any information.

65.3% of CS had global information about CS and 34.3% had no any information.

The most reason of tendency toward NVD were: very low risk for fetus (15.2%), very fast recovery after delivery (14.3%), very low risk for mother (14%), short time period of pain (13%), quickly breast milk feeding (12.3%) and no risk of anesthesia (11.3%).

The most reason of tendency toward CS were: fear of painful NVD (16.3%), perineum injury (14.8%), healthier fetus (12.5%), no good situation delivery room (10.8%), low death risk for mother (10%), high class delivery (9.3%), control of birth day (9%) and bad previous CS (8.5%).

Based on single-variable logarithmic sampling: a few factors had positive effect on the rate of NVD and decreased the rate of CS, for example: physician offering toward NVD (decrease rate of CS up to 97%), her husband offering toward NVD (decrease rate of CS up to 98%), her husband educational level, below diploma, toward NVD (decreased rate of CS up to 56%) and having information about NVD (decreased rate of CS up to 33%). On the contrary previous CS had positive effect on increase rate of CS to 273%.

Age, weight, number of children, number of delivery, educational level of pregnant women, pregnant women job, her husband job, history of treatment of infertility, income level, place of previous delivery, information about CS and pregnancy due to treatment of infertility had no effect on selection of type of delivery.

Based on multi-variable logarithmic sampling: only two factors had positive effect on the rate of NVD and decreased the rate of CS: husband educational level, below diploma, (decreased rate of CS 66%) and having information about NVD (decreased rate of CS 57%).

Educational level (diploma and over), physician offering and husband offering had no effect on selection of type of delivery. On the contrary last CS had positive effect on the rate of CS (increase rate of CS to 212%).

Based on chi square: a few factors had no effect on selection of type of delivery for example: number of child, number of delivery, educational level, husband educational level, kind of pregnant women job, husband job, history of infertility, economic level, previous place of delivery, treatment of infertility and having information about NVD or CS.

DISCUSSION

The indication of CS is usually when delivery of birth canal was difficult or with risk for mother or child. Because CS like other surgery had some side effects and risks.

In our study 22% of pregnant women were below diploma or illiterate, this is the same as other studies (15 and 16).

12.3% of pregnant women had illiterate or below diploma husband with. Based on single-variable logarithmic sampling the risk of CS between these women decrease to 56%. This is the same as other studies (9 and 17-18). This is may be due to idea of her husband about high class of CS or abnormality in vaginal system and sex problem.

Based on single-variable logarithmic sampling, the pregnant women with previous CS had 2.73 times tendency toward CS in comparison of NVD. This is the same as other studies (2, 5, 6, 9, 20-21 and 23). This is may be due to satisfaction of previous CS or this idea that they cannot have healthy NVD.

In our study 91.8% of pregnancy was done without treatment of infertility and about 8.2% had treatment of infertility. There was no any significant relation between treatment of infertility and tendency toward CS. This data was opposite to other studies (8 and 14).

In our study 65.5% of pregnant women had information about NVD. Based on single-variable logarithmic sampling, having information about NVD decrease tendency toward CS, up to

33%. This the same as other studies (8,11, 13, 14, 15, 26 and 27). No information about CS or NVD, negative idea about NVD, propaganda of CS and to acquire information of experience of other women were more reason of tendency toward CS.

In our study 65.7% of pregnant women had information about CS but this information had no effect on tendency toward CS. This is the same as other studies (9-10) but opposite to study of Yilmaz et al (5).

In our study 43% had tendency toward CS and 58% toward NVD, this is the same as Saha et al (2), and opposite to study of Chong et al (7).

In our study 16.3% of pregnant women had tendency toward CS, they said the major factor was fear of pain of NVD. This is the same as Yilmaz et al, Amino et al, Chong et al, Lock et al, Behmanesh et al, Bagheri et al and Nourizade et al (3,5-8,10,13).

In our study 14.8% of pregnant women had tendency toward CS, they said the second major factor was perennial injury. This is the same as Yilmaz et al (5), Salmani et al (21) but opposite of Lock et al (8). They had fear of injury and damage of perennial area and it can effect on sexual relationship.

In our study 14.3% of pregnant women had tendency toward NVD, they said the major factor was fast recovery after NVD. This is the same as Yilmaz et al (5).

Our study showed if the physician recommended to NVD, the tendency toward CS is decreased to 97%. In Yilmaz et al study 31.6% of pregnant women said the Physician recommendation was major factor to selected CS and 21.3% of them said the physician recommendation was major factor to selection of NVD (5). In Faraji et al study 70% of pregnant women said the physician recommendation was major factor to selection of type of delivery (22). In Nourizade et al study 18.7% of pregnant women said the physician recommendation was major factor to selection of type of delivery (13). In Signorelli et al report the physician recommendation was the major selection factor to selection type of delivery (23).

In our study based on regression simple-variable logarithmic sampling there is no any relation between age, weight, educational level, husband educational level and socioeconomic level. This is opposite to Movahed et al (9).

Based on multi-variable logarithmic sampling husband educational level (above diploma), physician recommendation and husband recommendation had no effect on selection of type of delivery. But if husband educational level was below diploma, the rate of CS decreased up to 66%. This is the same as Mohammadbeigi et al (17), Movahed et al (9). If the last delivery type was CS, the rate of CS of next delivery increased to 212%. This is the same as

Alimohammadzade et al (24). If the pregnant women had information about NVD, the rate of CS was decreased to 57%. This is the same as Yilmaz et al (5) and Salmani et al (21).

Based on chi square in our study there is no relation between number of delivery, husband educational level, husband job, history of infertility and tendency to selection of type of delivery. This is opposite to Salmani et al, Mohammadbeigi et al, Khosravi et al, Movahed et al (9, 12, 17, and 21). There is no relation between educational level of pregnant women and selection of type of delivery. This is the same as Gholami et al (18) but opposite to Movahed et al (9). There is direct relation between previous type of delivery and selection of type of delivery. This is the same as Movahed et al (9) and Salmani et al (21). There is direct relation between physician recommendation and selection of type of delivery. This is the same as Sharghi et al (19), Gomes et al (25) and Anderson et al (26). There is direct relation between husband recommendation and selection type of delivery. This is the same as Sharghi et al (19).

CONCLUSION

We conclude the major factors that effect on selection type of delivery were physician recommendation, husband recommendation, husband educational level, pervious type of delivery and having information about NVD and CS.

The major tendency toward CS was fear of pain of NVD. Perennial injury of NVD was one of the important cause of tendency toward CS.

Therefore physicians, nurses and midwives have to give more information about NVD and CS to pregnant women and her husbands.

REFERENCES

- 1-Mohammadian A, Ahari M, Mahmoodi M and Ramezanzadeh F. The effect of pregnant womens' request on elective cesarean. Payesh J. 2003; 2 (2): 133-9.
- 2-Saha L and Chowdhury SB. Study on primary cesarean section. Mymensingh Med J. 2011; 20:292–297.
- 3-Bagheri A, Masoodi- Alavi N and Abbaszade F. Effective factors for choosing the delivery method among the pregnant women in Kashan. KAUMS Journal (FEYZ). 2012; 16 (2):146-153
- 4-Black C, Kayem James A and Hershel J. Cesarean delivery in the United Kingdom: time trends in the general practice research database. Obstetrics & Gynecology. 2005; 106(1):151-155.

- 5-Yilmaz SD, Bal MD, Beji NK and Uludag S. Women's Preferences of Method of Delivery and Influencing Factors. *Iranian Red Crescent Medical Journal*. 2013;15(8):683-689.
- 6-Aminu M, Utz B, Halim A and Van den broek N. Reasons for performing a caesarean section in public hospitals in rural Bangladesh. *BMC pregnancy and childbirth*. 2014;14(1):130-138
- 7-Chong E and Mongelli M. Attitudes of Singapore women toward cesarean and vaginal deliveries. *International Journal of Gynecology & Obstetrics*. 2003;2(80):189-194.
- 8-Loke AY, Davies L and Li S. Factors influencing the decision that women make on their mode of delivery: the Health Belief Model. *BMC Health Services Research*. 2015;(15):274-286.
- 9-Movahed M, Enayat H, Ghaffarinasab E, Alborzi S and Mozafari R. Related Factors to Choose Cesarean Rather than Normal Delivery among Shirazian Pregnant Women. *JFUMS*. 2012; 2(2):78-89.
- 10-Behmanesh Sh, Iranfar Sh, kamravamanesh M and Rezaei M. related Factors to choice of delivery method in pregnant women in Kermanshah. *Journal of Kermanshah University of Medical Sciences*. 2009;13(1):101-102.
- 11-Atghaei M, Nouhei A and Khajepoor M. Investigating attitude of labor pain and choosing the type of Delivery in pregnant women referring to health centers in Kerman. *Journal of qualitative Research in Health Sciences*. 2010; 10(1):36-41
- 12-Khosravi M, Armat M and Jarollahi N. Prevalence of Cesarean section and its related factors. *Holist Nurse Midwifery*. 2006; 16(1):12-17.
- 13-Nourizadeh R, Mohammadpour A, Kazempour R and Bakhtari Aghdam F. selection of mode of delivery and its related factors in pregnant women in Marand. *Journal of Urmia Nursing and Midwifery Faculty*. 2009;7(1):51-57.
- 14-Rafati S, Madani A, Mashayekhi F, Rafati F and Pilevarzadeh M. Related factors to choose cesarean section among Jiroft pregnant women. *Journal of Preventive Medicine*. 2014;1(1):23-30
- 15-Sharghi A, Kamran A and Sharifirad GH. The survey on effective factors on delivery type in first pregnancy women refer to Ardabil clinic. *Health journal of Ardabil*. 2011; 7(3): 364-372
- 16-Mohammadi G and Abasi M. The survey about having information of pregnant women of selection of type delivery. *Quarterly moral medicine*. 2014; 8(27):54-69
- 17-Mohamadbeigi A, Tabatabaee S, Mohammad Salehi N and Yazdani M. Factors Influencing Cesarean Delivery Method in Shiraz Hospitals. *IJN*. 2009; 21(56):37- 45.

- 18-Gholami a, Shakeri M andKhojastepour M. The rate of tendency toward CS and related factor in pregnant women with history of vaginal delivery in Neishabour. Rafsanjan journal of medical sciences. 2013; 12(6): 437-446
- 19-Sharifirad GH, Fathi Z, Tirani M andMehaki B. Assessing of pregnant women toward vaginal delivery and cesarean section based on behavioral intention model. Ilam University of Medical Science 2007; 15(1): 19-23.
- 20-Anderson ET. Health and disease prevention. Nursing Outlook 1996; 10(5): 1105-252.
- 21-Salmani N. The survey about the idea of pregnant women of selection of type of delivery in Yazd hospitals. Journal of Yazd University. Nursing report 2007.
- 22-Faraji R, Zahiri Z andFarjad F. Knowledge and Attitudes of pregnant women to normal delivery methods. Journal of Guilan University of Medical Sciences 2003; 12(46): 69-75.
- 23-Signorelli C, Cattaruzza MS and Osborn JF. Risk factors for caesarean section in Italy: results of a multicenter study. Public Health 1995; 109(3): 191-9.
- 24-Alimohammadzade KH, Moheb F and Tahere L. The cause of CS in three decade "survey on article researches". 2013; 16(61): 5-64
- 25-Gomes UA, Silva AA, Bettiol H and Barbieri MA. Risk factors for the increasing cesarean section rate in southeast Brazil: A comparison of two birth cohorts, 1978- 1979 & 1994. Int J Epidemiol. 1999;28:687-694.
- 26-Anderson GM and Loams J. Explaining variations in cesarean section rates, patients, facilities or policies? Can Med Assoc J. 1985;132:253-256.

How to cite this article:

H. M. Abad Nazir, A. H. Motlagh, M. A. Ghatee, H. Nouradin. Evaluation of tendency to selection type of delivery of last trimester pregnant women refers to GYN clinic of Yasuj city on 2017. J. Fundam. Appl. Sci., 2018, 10(2), 523-531.