

Investigating the Relationship between Demographic Factors and Choice of Delivery Method in Pregnant Women in the City of Savojbolagh

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Abstract

Objective: To evaluate the increased rate of cesarean section in recent decades and natural desire of women probably due to social, economic & cultural issues in our country. While that in many cases, vaginal delivery can be replaced by unnecessary cesarean. In the absence of need the trend of cesarean section has implications for both future healthy populations and the equitable distribution of maternity resources. The aim of the present study was to investigate demographic factors associated with the choice of delivery method.

Materials and methods: In this descriptive cross-sectional study with a random sampling, 283 pregnant women who were referred for control of pregnancy to two primary health care centers two health base were interviewed by Completing the questionnaire. After gathering information data by SPSS software & via descriptive statistical indicators were analyzed.

Results: 35/7% of pregnant women who were studied willing to perform cesarean section. There was a significant relationship between the having a history of cesarean section and referral place for control of pregnancy with selection of the labor type ($P < 0.001$). While There was no significant relationship between the Demographic factors as age, educational level & job of pregnant women & Their husbands with Select the type of delivery ($P > 0.001$). The reasons for selection of cesarean section were fear of labor pain, Prevention of genital rupture & physician recommendation.

Conclusion: The rate of selecting cesarean section is higher than acceptable World Health Organization. Therefore, careful planning should be done to raise awareness, improve attitudes and change false beliefs in pregnant women & their husbands by health service's personnel.

Keywords: Delivery Method, Pregnant Women, Cesarean Section

Introduction

Childbirth is a physiologic process which a human comes into being during it, so methods of childbirth

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have an important role in parallel with it (1). During recent decades in many countries as our rate of cesarean section has been greatly increased, while many cases of unnecessary cesarean sections (C/S) can be replaced by normal vaginal delivery (NVD) (2).

The natural desire of a women's group to C/S is going to increase probably due to social, economic &

cultural reasons and also because of this wrong idea that each woman with previous C/S has to choose C/S for her further deliveries(3). One of the most important causes of high C/S rate mother desire, which usually is hidden behind common diagnoses (4).

According to performed investigations in the USA and most developed countries' prevalence of C/S progressively increased from 4.5%(of all deliveries) in 1965 to 25% in 1988 and then impended to decrease due to propagation of NVD after previous C/S & also lower rate of C/S in primigravid women but after that it again started to increase and reached to 26% in 2006(5). A study performed by Yazdizadeh & colleagues, explained that C/S rate in Iran has been increased from 35% in 2000 to 40% in 2005(6). In study performed by Garmaroudi & Eftekhar, prevalence of C/S in primigravid women was 26.8% and in multigravid women, it was 25.5%. Most prevalence of C/S varied from 87% in nongovernmental hospitals to 5-39% in governmental ones. In this study, mother & her family desire and maternal occupational status were the most important causes of C/S (7).

Results of several studies show that there are some beyond academic reasons, which determine the method of delivery (8). In most time, wrong beliefs, abstract manners & unawareness of patients determines the method of delivery (9).

Unfortunately unnecessary C/S has been intemperately increased and not merely to save the mother and neonate lives so it is gradually going to be as a luxury in some communities (10).

Materials and methods

In this descriptive cross-sectional study two primary health care centers (Malekabad & Shahid Kalimallah) and two health bases (Imam Jaafar & Valiasr) were randomly selected and determined as the sampling community among the others in Savojbolagh province, which is governed by Alborz medical university. 283 pregnant women who referred to these four centers in order to prenatal care were selected, and women who desire cesarean were interviewed by an educated midwife. A questionnaire was designed on base of demographic factors, past gravidity history & choice of delivery method and when its stability & expressivity (90%, 95%) were confirmed, it was completed by questioners. In this study, pregnant women desire & its reasons, without any initial instruction or recommendations were investigated. So individuals without any defined

desire were omitted from this study.

The relation between qualitative variants and type of selected delivery method was evaluated by X^2 test and comparison of quantitative variants in women with choice of NVD or C/S was done by independent t. test. Finally, the data were analyzed by SPSS16 software and via descriptive statistical indicators.

Results

According to findings were obtained in this study the average age of pregnant mothers was 23.5 y/o with the minimum of 17y/o and maximum of 44y/o also the average age of their husbands was 27 y/o with the minimum of 21 y/o and maximum of 59 y/o. The most abundance distribution of studies ranged in pregnant women was lower than the diploma (50.9%) and in their husbands; it was diploma (47%). The average age of marriage in understudied women was 21 years old and in their husbands, it was 26 years old.

Between 283 selected women, 182 (64.3%) cases desired to NVD and 101 (35.7%) desired to C/S. The most understudied pregnant women (95%) were housewives and were in their first experiment of pregnancy (52.3%) and 86.9% of them had a wished pregnancy. Between 135 (47.7%) cases of multigravida women 43 (15.2%) cases had history of previous C/S.

The numbers and percentage of selected delivery method according to different levels of separate variants have been shown in table 1. As it is shown in this table, there is significant relationship between selected delivery method and positive history of previous C/S & also referral place for prenatal care. The reasons for selection of NVD, consequently, were: fear of anesthesia, rapid recovery, less expense than C/S, healthy neonate. The reasons for selection of C/S were: fear of labor pain, prevention of genital ruptures, and physician recommendation consequently.

Discussion

In this study 35.7% of pregnant women selected C/S as their delivery method. In study which has been done Shahbazzadegan & Asadzadeh to evaluation of effective factors on selection of delivery method in Ardebil province the C/S rate was 40.4%(11). And in study that has been done by Shahnaz Aram & colleagues, to evaluation of relative abundance of selected delivery method in Isfahan the C/S rate was 43%(12).Furthermore, the results of a study which had been performed in 1383 in Semnan showed that 38% of pregnant women desire to select C/S as their

Table 1: The numbers and percentage of selected delivery method

| Categories | characteristics | Natural Delivery (n= 182) | Cesarean (n=101) | total (n= 283) | pv |
|----------------------------------|------------------------------|------------------------------|---------------------|-------------------|-------|
| Job | Housekeeper | 171(63.6%) | 98(43.6%) | 269(95.1%) | 0.1 |
| | Employed | 11(78.6%) | 3(21.4%) | 14(4.9%) | |
| Age | Less than 18 years | 8(72.8%) | 3(27.3%) | 11(3.9%) | 0.7 |
| | 18-35 | 162(64.3%) | 90(35.7%) | 252(89%) | |
| | More than 35 years | 12(60%) | 8(40%) | 20(7.1%) | |
| Education | Illiterate | 20(76.9%) | 6(23.1%) | 26(9.2%) | 0.4 |
| | Under diploma | 92(63.9%) | 52(36.1%) | 144(50.9%) | |
| | Diploma | 55(60.4%) | 36(39.6%) | 91(32.2%) | |
| Referral place for prenatal care | Academic | 15(68.2%) | 7(31.8%) | 22(7.8%) | 0.001 |
| | Health centers | 143(69.4%) | 63(30.6%) | 206(72.8%) | |
| Pregnancy status | Private clinic | 39(50.6%) | 38(49.4%) | 77(27.2%) | 0.1 |
| | First trimester of pregnancy | 42(59.2%) | 29(40.8%) | 71(25.1%) | |
| | Second trimester | 70(61.4%) | 44(38.6%) | 114(40.3%) | |
| History of cesarean delivery | Third trimester | 70(71.4%) | 28(28.6%) | 98(34.6%) | 0.000 |
| | yes | 9(20.9%) | 34(79.1%) | 43(15.2%) | |
| Type of Pregnancy | no | 173(72.1%) | 67(27.9%) | 240(84.8%) | 0.4 |
| | Asked | 150(64.6%) | 173(35.4%) | 246(86.9%) | |
| Delivery history | Unasked | 23(62.2%) | 14(37.8%) | 37(13.1%) | 0.1 |
| | First pregnancy | 101(68.2%) | 47(31.8%) | 148(52.3%) | |
| | Pregnant more than once | 81(60%) | 54(40%) | 135(47.7%) | |

delivery method and their most reason was fear of labor pain(13).

In study which had been done by Asghar Mohamadpourasl & colleagues, in Maragheh province, 28.4% of women selected C/S as their delivery method and their reasons, consequently, were: fear of labor pain, physician recommendation & history of previous C/S. The results which are obtained from this study about the relation between selected delivery method and history of previous C/S & also the referral place for prenatal care, confirm our study results in Savojbolagh(14). In study which Kashanizadeh performed on referred cases to Baghiatallah hospital the most important cause (41.2%) for selecting C/S was repeated C/S(15). Results of a study in Kohkiloueh & Boyerahmad showed that total numbers of deliveries during one year were 7649 cases that 66.94% of them were NVD and 32.92% were C/S(16). The results of a qualitative study in Shahroud which had been performed by Sepideh Hajian& colleagues, showed that fear of labor pain is the most important cause of popular trend to C/S (5). The results of studies in Tehran which recently had been done by Ali Mohamadian & colleagues showed that the prevalence of C/S is 66.5% and in nongovernmental hospitals & high

educated mothers & working mothers, C/S rate is usually more than NVD. 72%% of C/S were elective which 22% of them arose from mother's desire(17). According to Hildingsson & colleague's research, the most cause for mother's desire to C/S was fear of labor pain rather than medical indications. In this study, prenatal psychologic support for women who are being afraid of labor pain or have previous history of dystocia is recommended(18). In Rahimikian & colleague's investigation, instruction via a health belief model was effective on pregnant mother's desire to selecting NVD as their delivery method (2). Also in study that had been performed in the Netherlands by Duche explained that unnecessary C/S had implications for further healthy population and the equitable distribution of maternity resources(19). As the WHO report (which explains that the maximum, acceptable rate of C/S is 10-15% of deliveries) and since the high rate of desire to C/S in Savojbolagh and also in order to improve the maternal & neonatal health condition which secured all community health, it seems necessary to have a subtle programming for popular awareness promoting& viewpoint improving & wrong believes alteration in pregnant mothers & their husbands by personnel in health centers, health bases & health

houses that present health care services.

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