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A Study on Attitude of Pregnant Women with Intention of Elective Cesarean Based on Theory of Planned Behavior

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Abstract

***Background*:** The purpose of this research was to study the attitudes of pregnant women with intention of elective cesarean section, based on the theory of planned behavior.
***Materials and Methods*:** This cross-sectional study was carried out on 150 pregnant women in their third trimester of pregnancy with an intention or decision to elective cesarean section, who were selected through probability sampling. The collection tool of information was a questionnaire based on the theory of planned behavior.
***Results*:** In a majority of women, the attitude and the control of perceived behavior was weak or intermediate. The ANOVA test showed a significant statistical correlation between the means scores of attitude with education level and the control of perceived behavior with type of previous labor. Obedience incentive was based on physicians, mothers, and spouses' decisions, respectively.
***Conclusion*:** Continuous classes for training psychological skills and the preparation of mothers for delivery should be established to decrease the interest of pregnant women toward elective cesarean section.

Introduction

The selection of the caesarean method without medical reason by the pregnant mother is called elective cesarean section [1]. Requests for elective cesarean section have increased in recent years. The fear of physical harm, concern about the fetus, and unwillingness to tolerate the pain are the main factors for this in Asian regions. In Iran, doctor's recommendations, following current trends, and disrespect to mothers during labor are other reasons [2, 3].

Since the increase of unnecessary cesarean is an indicator of inadequate health care systems of countries, the World Health Organization has announced the target of 15% for cesareans until 2010 [3, 4]. However, the percentage of cesarean changes in 2007 in the United States and Italy were 31.8% and 39.8%, respectively, and it was 37.7% in 2008 in Turkey [5, 6]. This was 40.4% in Iran in 2005 [7]. According to the treatment deputy of Zahedan University of Medical Sciences, the rate of cesarean section has increased 25% in Zahedan hospitals during 2006-2010. On the other hand, patterns of behavior study can be important when evaluating people's viewpoints toward health behaviors. Therefore, based on the performed studies, the behavioral intention model can be used as a model.

According to this theory, people's behavior is conducted by three factors: attitudes toward the possible consequences of the behavior and the evaluation of these results, normative beliefs of others and incentives made by these beliefs, factors that may facilitate or inhibit the behavior and the perceived power of these factors. If the attitudes are favorable, the norm is subjective, and the perceived behavioral control is bigger, then they will be conducted to behavioral intention [8]. As we know, no study has been carried out using this model to assess the viewpoints of women with elective cesarean in Iran. In this study, the theory of planned behavior was used to assess the viewpoints of women with elective cesarean intention.

Materials and Methods

This cross-sectional study was carried out on 150 pregnant women in their third trimester of pregnancy who were selected through probability sampling. For this purpose, obstetricians' and gynecologists' offices were randomly selected; then, all pregnant women who requested caesarean section without medical reason were chosen. Exclusion criteria included a history of preterm delivery, the detection of multiple pregnancies, a small pelvis, diabetes, and hypertension.

Due to the lack of a standard questionnaire in this field, a questionnaire was developed using resources and reference books and the results of other studies in this

area. The content validity ratio (CVR) and the content validity index (CVI) of the questionnaire were 0.69 and 0.88, respectively. The reliability of the questionnaire gained a Cronbach's alpha score of 0.71-0.87 by using the internal consistency method. To determine the stability, the test-retest method was used ($p< 0.01$, R=0.77-0.87). The collected data were then analyzed using SPSS-15 software.

Results

The findings of the demographic characteristics of the mothers were depicted in table 1.

Table 1. The demographic characteristics of the pregnant women

Variable	Mean (SD)/ %
Age female (year)	27.4 (5.20)
Age male(year)	31.4(5.95)
Education	
Primary& Guidance	14.7
Diploma	35.3
Associate degree	17.3
Bachelor and higher	32.7
Job	
Housewife	68
Employee	26.6
Free	5.4

The mean score of women's knowledge about normal delivery and cesarean section was 9.63 out of 14 points. Women's attitude and perceived behavioral control toward natural childbirth selection were 22.17 and 18.45 respectively, out of 35 points. There was a significant relationship between the attitude scores of pregnant women with the education through ANOVA test (p=0.04). Tukey's test showed that the highest scores mean were seen among women with the education levels of associate degrees and diplomas (23 and 22.92, respectively), then women with bachelor's or higher degrees with a mean attitude score of 21.82, and finally women with elementary to middle school education levels (with a mean score of 21.18).

In addition, there was a significant relationship between the mean scores for the perceived behavioral control of pregnant women and their previous delivery type (p=0.03). Tukey's test results indicated the mean scores for perceived behavioral control as 20.90, 19.11, and 17.49 for women with experiences of natural childbirth, women with a previous cesarean delivery, and nullipara pregnant women, respectively. The assessment of the subjective norm of pregnant women is depicted in table 2.

Table 2. The frequency of subjective norms responses of pregnant women

Questions	Agree	Disagree
I do cesarean, according to my wife's point of view	54.7	45.3
Nowadays, physician recommended cesarean section	80	20
I do cesarean, because there is no history of problems with CS in my family	50	50
I do vaginal delivery based on advice of health workers (midwives, …)	26	74
I prefer a vaginal delivery because I was born with vaginal delivery as well	28	72
I've read books about labor and delivery. Then, I decided doing vaginal delivery	23.9	76
I do vaginal delivery as my friends experienced comfortable vaginal delivery	26.6	73.3

In terms of obedience incentives, the doctor was in first rank (53.3%), myself in the second rank (42.7%), and the spouse in the third rank (36.7%).

Discussion

The results of the studies in Iran showed that factors such as the first pregnancy, employment, and higher education is significantly associated with increased mothers' requests for cesarean section [9, 10]. However, in Sweden, the reasons were associated with the first pregnancy, low education levels, and experiences of previous cesarean section [11]. In the present study, cesarean section request rate was high in housewives, highly educated and first pregnancy women, which is consistent with the results of Iranian studies. The difference between our results and those of other countries could be due to the cultural differences.

Arjomandi et al. reported in a study that women had low awareness in 10.8%, good awareness in 55.6%, and appropriate or excellent awareness in 33.5% about cesarean delivery [12]. In the present study, women had low awareness in 34%, intermediate awareness in 26.7%, good awareness in 27.3%, and high awareness in 12%. These differences suggest that awareness among pregnant women with elective cesarean section is lower than total pregnant women, and this can lead to high tendency toward cesarean.

In the study conducted by Faraji et al., the findings showed that 75.4% of the women had positive and 24.6% had negative attitudes toward natural childbirth. Furthermore, there was a significant relationship between attitudes and occupation ($p< 0.014$), education ($p< 0.001$), and type of previous delivery ($p< 0.011$) [13]. In the present study, 54% of the women had negative attitudes and 33% had positive attitudes toward normal delivery, and there was only a significant relationship between attitude and education level (p=0.04). This represents a more negative attitude of women with elective cesarean incentive compared with all of the pregnant women.

Negahban and Ansari's research results on nullipara women showed a highly significant correlation between the intensity of fear and delivery type (p<0.001, df=3) [14]. In the present study also, the majority of the women noted that they could not tolerate natural labor pain and would not do it. In fact, it can be claimed that they did not believe in their abilities and did not have enough confidence.

The results of Sharifirad's study showed that in the field of subjective norms of pregnant women, physicians were in the first rank, and then there were husbands, mothers, friends, books, mass media, and health workers in the next ranks. In terms of obedience incentive, they obeyed the same order [15]. In the present study also, in terms of subjective norms, the doctors were in the first rank, and then spouses and family members were in the next. In terms of obedience incentive, physicians ranked first and then the decision of the mothers and husbands were the next effective factors in the selection of delivery type.

According to the results of this study that showed low awareness and attitude in half of the studied units, awareness should thus be increased and attitude structures should be reformed. We suggest starting the required training from adolescent girl schools, because awareness increment requires continuous education. In addition, the mass media can play a significant role in culture building and attitude change. Since the majority of women had low perceived behavior control, it is necessary to train mothers with the intention of elective cesarean using this model in women's clinics. Since the most important subjective norm and obedience incentive are doctors, they should use appropriate advice for patients. On the other hand, delivery room staff skills must also be upgraded to provide more acceptable care.

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Authors' Contributions

Authors made a substantial contribution on study design and Questionnaire preparation. Fariba Shahraki-Sanavi gave a major contribution on literature review, data collection and data entry. Alireza Ansari-Moghaddam and Fariba Shahraki-Sanavi analyzed and interpreted data. Fariba Shahraki-Sanavi, Fateme Rakhshani and Alireza Ansari-Moghaddam drafted the first version of manuscript. All authors have made extensive contribution into the review and finalization of this manuscript.

Conflict of Interest

The authors declare no conflict of interest.

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