

Attitudes of Primary Pregnant Women Toward Preference of Birth Method in Dezful, Iran: A Cross-Sectional Study

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Abstract

Introduction: Choosing the birth method is a major issue for pregnant women that is affected by multifaceted physiological, psychological and socio-cultural factors.

Aim(s): The aim research was performed to explore factors influencing pregnant women's attitude toward birth method.

Methods: This is a cross-sectional study on 220 healthy nulliparous pregnant women with uncomplicated pregnancies without any contraindication for vaginal birth in Medical Centers of Dezful, in the south west of Iran. Data collection tool was a questionnaire for factors affecting the choice of delivery method. Differences in attitude were compared between two groups of natural vaginal delivery preference and cesarean delivery preference. Statistical *analysis* was performed with *SPSS Version 16.0* statistic *software* package. Descriptive statistics were used to report percentages, mean, and standard deviation, and t-test, chi-square were applied to analyze the data.

Results: During the study period, 206 primary pregnant women were examined to determine the attitudinal influencing factors the birth method preference. 131 women (64%) chose the natural delivery method and 71 women (36%) chose the cesarean delivery method. In addition, the results showed a statistically significant difference between the two groups regarding the general attitude of the participants towards natural delivery (164.43 in the normal vaginal delivery (NVD) group versus 134.50 in the cesarean section (CS) group ($p < 0.001$)).

Conclusion: There is a direct relationship between the attitude of pregnant women towards vaginal birth and the tendency to normal vaginal delivery and cesarean section. Also, according to the results of the study of 8 components of attitudes, counseling sessions and prenatal training sessions can be identified based on counseling needs and be guided counseling sessions more purposefully.

Keywords: Attitude, Pregnant Women, Delivery, Cesarean Section

1. Introduction

Choosing the birth method is a major issue for pregnant women that is affected by multifaceted physiological, psychological and socio-cultural factors [1]. Choosing the birth method is a convenient, safe, and secure way for the mother to understand her baby's safety and comfort. This feeling is often shaped by emotional evaluations and judgments, and sometimes informed by beliefs, attitudes, experiences and information gained about the delivery method [2]. In recent decades, advances have been made in the development of human science and technology with the help of surgery in cases where the mother or fetus dies danger helped save them. Cesarean delivery has been one of the great human achievements and it has saved a lot of mothers and baby lives, but its application has increased alarmingly in recent decades [3]. The global concern about CS rates is reasonable. Studies have shown that maternal and prenatal mortality can be prevented by CS. Nonetheless, no evidence reveals the advantageous of the procedure for women or infants where it is unnecessary. CS is linked with short- and long-term risks

extending beyond the present delivery and influencing the future pregnancies. Furthermore, the increased CS rates are apparently unmanageable without any signs of slowing down. This situation is intensified by uncertain causes of the increases developing as a complex multifactorial labyrinth including health systems, health care providers, women, societies, and even fashion and media [4-8]. Finally, non-clinical interventions to decrease needless CS have revealed restricted success up to now. Accordingly, a meeting was held by WHO in Geneva, Switzerland, on 8–9 October 2014 for 1) setting the current WHO position on the CS rate or range for best maternal and perinatal results at population level, and 2) approving on a proposal for a tool for monitoring CS rates at facility level [9]. According to the suggestions of the World Health Organization, the caesarean section rate should not exceed 10–15% of the labors [10]. According to a systematic review and an ecological analysis at population level, CS rates higher than 10% were not linked with decreased maternal and newborn mortality rates [9]. Several factors affect increased CS rate such as fear of childbirth, fear of lack of control over the childbearing events, fear of pain, the mother's choice, and the lack of knowledge regarding the CS drawbacks and vaginal delivery benefits as well as women's negative attitudes towards their preceding vaginal delivery. Moreover, the psychological factors such as fear, depression and anxiety are believed to be significantly involved in birth method selection [11]. Promoting maternal health requires understanding many complex factors involved in choosing the type of childbirth, and this can be achieved through consideration of women's beliefs, values and customs and understanding the impact of cultural factors on the choice of childbirth and maternal health [12]. Given the increased prevalence of cesarean section and extensive studies conducted around the world, one of the ways to reduce cesarean delivery without indication is to identify the causes and factors affecting the choice of delivery method, especially cesarean section. This paper aims at determining the causes and components affecting the choice of delivery method.

2. Materials and Methods

The current research is a cross-sectional descriptive and analytical study performed in six Health Centers in Dezful, in the south west of Iran from January to June 2019. Sampling was done by two-stage clustering method. At first, six Health Centers in Dezful were selected by simple random sampling and then samples were randomly selected from each health center using random number table. In this study, the sample size involved 204 eligible pregnant women. Based on the probable rate of attrition, 220 pregnant women were selected.

Inclusion criteria included age range of 18-35 years, height over 145 cm, weight range of 50-90 kg, first pregnancy, gestational age of 28 weeks and consent and participation of pregnant women to participate in the study. Exclusion criteria included placental problems, diagnosis of multiple pregnancies, high-risk pregnancy (preeclampsia, diabetes, uncontrolled gestational diabetes, pre-term labor, fetal intrauterine death, etc.), having a history of infertility and contraindication for normal vaginal birth.

Data collection tool was a questionnaire of attitude factors affecting the choice of delivery method that was designed in 2014 by Abbaspour et al. [2]. This is a two-part questionnaire; the first part contains 15 items that show the demographic characteristics and preference of the birth method. The second part contains 68 items that show the attitudinal factors influencing the choice of birth method. This questionnaire covers 8 areas of choice of delivery method including: 1- Beliefs and attitudes, 2- Mental, sexual and physical patterns, 3- Fear of childbirth, 4- Overall confidence, 5- Social-cultural norms, 6- Trust the midwife, 7- Performance and personal choice, and 8. Sources of Influence. The questionnaire is based on the Likert scale According to the type of options or Likert questionnaires, the score questionnaire was divided into three groups: negative attitude towards natural childbirth and interest in cesarean section (113-68), neutral attitude (159-114) and positive attitude towards natural childbirth (204-160). That the increase in score indicated an increase in the desire to have a normal vaginal delivery. The questionnaires were completed after informed consent and assurance of the participants to keep their information confidential with the questionnaire guidance and self-report by the participants. The reliability of the questionnaire was determined by Cronbach's alpha coefficient of 0.889 and intra-class correlation coefficient of 0.73 with confidence interval (0.5-0.86). From 220 eligible participants, 206 completed and returned the questionnaires. After completing the study, the data were analyzed using SPSS software (Version 16). Descriptive statistics were used to report percentages, mean, and standard deviation, and t-test, chi-square were applied to analyze the data. P value less than 0.05 was considered significant. The research ethics committee of Dezful University of Medical Sciences, Dezful, Iran (IR.DUMS.REC.1397.045), approved ethical issues of the study. Furthermore, all participant provided us with informed consent (oral and written).

3. Results

During the study period, 206 primary pregnant women were examined to determine the attitudinal influencing factors the delivery method preference. No differences were detected in terms of the socio-demographic

characteristics between the between groups of preferred natural delivery method and preferred cesarean delivery method (Table 1).

131 women (64%) chose the natural delivery method and 71 women (36%) chose the cesarean delivery method. Also, the results of independent t-test revealed a statistically significant difference between the two groups regarding the general attitude of the participants towards natural delivery (164.43 in the normal vaginal delivery (NVD) group versus 134.50 in the cesarean section (CS) group ($p < 0.001$)) (Table 2).

There were statistically significant differences in the areas of belief (**46.77** in the NVD group versus **40.03** in the CS group ($p < 0.001$)), fear of childbirth (**15.52** in the NVD group versus **11.15** in the CS group ($p < 0.002$)), mental-sexual and physical concepts (**31.40** in the NVD group versus **25.08** in the CS group ($p < 0.001$)), socio-cultural norms (**22.94** in the NVD group versus **20.60** in the CS group ($p < 0.001$)), all-round confidence (**23.98** in the NVD group versus **15.25** in the CS group ($p < 0.002$)), trust in the delivery agent (**5.43** in the NVD group versus **4.61** in the CS group ($p < 0.001$)), performance and personal choice (**8.27** in the NVD group versus **7.75** in the CS group ($p < 0.004$)). Nevertheless, for the influential sources, there was no significant difference (10.13 in the NVD group versus **10.04** in the CS group ($p = 0.752$)) (Table 3).

Table 1. Demographic Factors of Pregnant Women in Two groups of Preference of natural childbirth and cesarean section

Groups Variables		natural childbirth group		cesarean section group		P Value
		Mean	(SD)	Mean	(SD)	
Age		26.42	3.969	26.17	3.732	0.662
Marriage age		22.69	3.762	22.17	3.397	0.329
		n	%	n	%	
Education	Elementary and middle school	6	85.7	1	14.3	0.115
	high schooler and Diploma	41	55.4	33	46.6	
	University	84	67.2	41	32.8	
Job	Housewife	117	63.9	66	36.1	0.698
	Employee	7	53.8	6	46.2	
	Freelance job	7	70	3	30	
Husband Education	Elementary and middle school	14	66.7	6	33.3	0.688
	high schooler and Diploma	55	64.7	30	35.3	
	University	62	61.4	39	38.6	
Housing situation	Owner	54	70.1	23	29.9	0.44
	Rental	39	57.4	29	42.6	
	Living with family	34	63	20	37	
	Corporate Homes	4	57.1	3	42.9	
Insurance	Yes	117	65	63	35	0.269
	No	14	53.8	12	46.2	
Ethnicity	Persian	97	64.7	53	35.3	0.33
	Lor	24	55.8	19	44.2	
	Other	10	76.9	3	23.1	

Table 2. Survey of Frequency distribution and leveling percentage of attitude toward natural childbirth

groups	Natural childbirth N=131		cesarean delivery N=75		P Value
	n	%	N	%	
positive attitude	71	52.2	2	2.7	0.001
Neutral attitude	60	45.8	68	90.7	0.001
Negative attitude	0	0	5	6.7	0.001

Table 3. Comparison of mean and standard deviation of attitudes of first pregnant women toward Preference of Birth Method

groups	Natural childbirth		cesarean delivery		P Value
	Mean	(SD)	Mean	(SD)	
Component of attitude to natural childbirth					
General attitude towards birth method	164.43	32.83	134.50	13.10	0.001
Beliefs and attitudes	46.77	4.74	40.03	6.11	0.001
Childbirth fear	15.52	11.63	11.15	2.62	0.002
Mental, sexual and physical concepts	31.40	5.55	25.08	4.90	0.001
Socio-cultural norms	22.94	2.92	20.60	2.57	0.001
All-round confidence	23.98	24.20	15.25	3.73	0.002
Trust in the delivery agent	5.43	1.56	4.61	1.42	0.001
Performance and personal choice	8.27	1.20	7.75	1.28	0.004
Sources of Influence	10.13	1.92	10.04	1.91	0.752

4. Discussion

According to our findings, all domains affecting women's attitude towards natural childbirth influence their choice of delivery method. The results showed a significant difference between the two groups in terms of the mean score of general attitude towards vaginal delivery. In addition, the highest level of attitude in cesarean section was in moderate level and the lowest level was in positive attitude. These results were consistent with the results of the study by Nosratabadi et al. (2018). The highest level of attitude of mothers who had cesarean section before their intervention was moderate. Their intervention was health counseling in the form of individual and group counseling to choose the method of birth [11]. Also in the present study, the attitude level of most participants in the natural childbirth group was positive. In the study of Najafi Sharjabad et al. (2017), the mean score of attitude in natural childbirth group was higher than in cesarean section group [13]. On the other hand, in the study of Akbari et al. (2017), the highest level of attitude for choosing the birth method in pregnant mothers was positive attitude [14]. In their study, the participants were both nulliparous and multiparous, while all participants in our study were nulliparous. According to the results of the present study, socio-cultural beliefs and norms were influential factors in choosing the delivery method. These results were consistent with the results of Bagheri et al. (2012). They concluded in their qualitative study that community culture and beliefs could ultimately influence women's choice of birth method and act as facilitators of vaginal delivery or cesarean delivery [15]. Also, the study by Mohammaditabar et al.'s (2014) showed that normative beliefs are one of the factors that increase the likelihood of choosing cesarean section delivery [16]. Fear of childbirth was another cause of cesarean delivery in the present study, which was in line with the results of the study by Fenwick et al. (2008). They found fear of childbirth as one of the causes of cesarean delivery [17]. Also, in the study of Tavassoli et al. (2015), there was a significant relationship between increased fear of natural childbirth with increased cesarean delivery and decreased fear of childbirth with reduced cesarean delivery and these results were consistent with the results of our study [18]. Also, in Hildingsson's (2014) study, fear of childbirth was strongly associated with cesarean delivery [19]. Ability to perform and choose the method of delivery is another important factor in choosing the delivery method. In the present study, these results were significantly different between the two groups of cesarean and vaginal delivery. These results were consistent with the study of Baghiani Moghaddam et al. (2014) in the area of perceived self-efficacy in the two groups of cesarean and vaginal delivery. In their study, natural childbirth group had higher self-efficacy than cesarean delivery group [20]. The results of our study show that the majority of pregnant women in the cesarean section group and almost half of the pregnant women in the normal childbirth group have a moderate level of attitude towards normal childbirth in the prenatal period. Considering the importance of promoting pregnant women's health, it is recommended that women who do not have a good attitude towards vaginal delivery be properly identified and properly counseled and trained.

5. Conclusion

Our findings revealed a direct relationship between the attitude of pregnant women towards vaginal birth and the tendency to normal vaginal delivery and cesarean section. Further research on educational and counseling interventions is recommended.

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Conflict of Interests

Authors have no conflict of interest.

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