

# A Study of The Attitude of Health Care Providers Working in Ganjavian Hospital in Dezful City towards Normal Vaginal Delivery and Cesarean Section

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## ABSTRACT

**Introduction:** Cesarean section is a common surgical intervention in the world. Caesarean birth is life-saving for mother and her newborn. However, overuse of it is a global health concern. The aim of this study was to examine the attitudes of health care providers towards the mode of delivery. **Methods:** In this cross-sectional-analytical study, the study population consists of obstetricians, nurses and midwives working in labor wards, gynecological surgery wards and operating rooms of Ganjavian hospital in Dezful. After obtaining written consent, a questionnaire is available. They consisted of two parts: the first part included demographic information (age, sex, work or education history, marital status, type of delivery, number of children and history of abortion; stillbirth or infant death) and the second part included a questionnaire measuring attitudes toward The delivery was normal and cesarean section. The questionnaire used in this study is a standard questionnaire that was validated by Heidari et al. in 2014. SPSS software version 20 was used for data analysis. Student's t-test was used to evaluate the mean difference. **Results:** Out of 105 participants in the present study, 12 were obstetricians (11.4%), 21 were nurses (20%) and 70 (66.6%) were midwives. Findings of the study showed that the majority of obstetricians (91.7%) and the majority of midwives (87.1%) and most nurses (87.5%) had a neutral attitude towards cesarean section. None of the obstetricians and nurses had a positive attitude towards cesarean section. Physicians had a more neutral attitude towards cesarean section than nurses and midwives. Nurses did not have a negative attitude towards normal vaginal delivery. In addition, midwives had a more positive attitude towards normal vaginal delivery than doctors and nurses. **Conclusion:** It seems that different attitudes towards the mode of delivery can be confusing for pregnant women. A prerequisite for a safe delivery is a close working relationship between the obstetrician and midwife/nurse.

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**Keywords:** Attitude, Midwife, Obstetrician, Nurse, Mode of Delivery, Health Care Providers.

## INTRODUCTION

Cesarean section is a surgical intervention and can be considered lifesaving for both mother and her baby in certain cases. However, overuse of cesarean section is a global health concern. In fact, in the last few years, cesarean section has always been the subject of discussion in health systems, and to a large extent, attention has been focused on its sharp increase. Attention to this important issue and the increasing number of women who prefer cesarean delivery in almost all countries have raised many concerns [1].

In 2000, the rate of cesarean section in Iran was 35%, which reached 40% and 46% in 2005 and 2007, respectively. In 2010, the rate of cesarean section was 45.6% and in 2013, the cesarean index in Iran reached 56%. The average rate of cesarean section in 2014 was 18.5% worldwide. The rate of cesarean section in Iran in 2014 and at the time of the beginning of the natural childbirth promotion plan was 56% and now it reached 50% [2]. In recent decades, despite recommendations from the World Health Organization (WHO) that cesarean rates be kept below 10-15%, the rate of cesarean section has increased worldwide. High rates of cesarean section are among the concerns of medical communities in many countries [3]. Cesarean section is known as a global epidemic and is considered a source of concern for healthcare professionals and researchers. It seems that other than clinical factors, nonmedical reasons are effective in changing the rate of cesarean section [4].

During pregnancy, a pregnant woman should receive adequate and balanced information related to concerns about the mode of delivery and issues related to complications of delivery modes. Since "women's choice" or cesarean section based on "mother's request" are the main reasons for the increase, among the general public, there is this agreement that women have the right to choose both methods based on concern and mental turmoil due to fear of childbirth. However, among specialists, there are conflicting opinions [5]. Researches have shown that teaching hospitals have lower rates of cesarean section than private institutions, which may be due to the role of specialized students and the use of their clinical guidelines [6].

In addition, some studies have shown that there are differences in mothers' healthcare providers in dealing with women's demands and acceptable rates of cesarean section. In addition, it seems that the personal beliefs of health care

providers, along with health factors, affect the decision making of cesarean section [7]. Some authors considered the factor of physicians important in making decision about cesarean section [8].

In order to reduce the rate of cesarean section, determining the factors affecting selection of delivery method is necessary. Since cesarean section has many adverse effects on the health of mothers and infants, including their quality of life, determining the causes of medical staff's tendency to cesarean section and general publication of its statistics can be effective for hospitals, health centers and researchers in determining effective strategies to reduce the rate of cesarean section [9]. This article examines the relationship between the attitudes of midwifery and women service providers towards the type of delivery.

## METHODOLOGY

In this cross-sectional analytical study, the study population consisted of nurses, midwives working in labor, obstetrics, surgery wards and operating rooms of Ganjavian Hospital as well as obstetricians and gynecologists. After obtaining written consent, they were provided with a questionnaire that consisted of two parts: the first part included demographic information (age, sex, work or educational background, marital status, type of delivery, number of children and history of abortion; stillbirth or infant death) and the second part included Attitude Assessment Questionnaire. The questionnaire used in this study is a standard questionnaire validated by Heydari et al in 2014 [3].

The questions related to attitude with Likert scale (1-5) were evaluated from strongly agreed to strongly disagreed, the scores of individuals about attitude toward normal delivery and CS were as follows: score 1-16 negative attitude, score of 17-33 neutral attitude and score of 34-50 positive attitude were considered about normal delivery.

Regarding the attitude toward cesarean section, the score 1-18 was negative attitude, the score 17-19 was neutral attitude and the score 38-55 was positive attitude toward cesarean section.

For data analysis, SPSS software version 20 was used. For the assessment of mean difference, student's t-test was used. Mann-Whitney test was also used for data that do not have normal distribution. Pearson test was used to determine the correlation between continuous variables.

In this study, sampling was done through census and in a period of 5 months, so that the researcher and colleagues personally attended Ganjavian Hospital and distributed

questionnaires among midwives, nurses, obstetricians and gynecologists who accepted to participate in the research.

Using the formula of sample size, sample size was calculated 103 people in cross-sectional studies with 95% confidence level, standard deviation of 5.24 and estimated accuracy of 1.

Data analysis is done using SPSS statistical software (Version 20), so that qualitative data are calculated with frequency and percentage and quantitative data with mean and standard deviation. To analyze the data, descriptive and inferential statistics tests (Student's T test and Pearson correlation

coefficient) were used.

## FINDINGS

Out of 103 participants in the present study, 12 were obstetricians (11.4%), 21 nurses (20%) and 70 midwives (66.6%).

Of the 70 midwives, 51 of them were working in Labor ward and the remaining 19 were working in surgery ward and operating rooms. Out of 21 nurses, 8 were working in the operating room and 13 in the gynecology surgery ward.

**Table 1.** Attitudes of providers towards normal vaginal delivery

	Obstetrician	Midwife	Nurse
Negative Attitude	8.30%	1.40%	0
Positive Attitude	58.30%	72.90%	62.50%
Neutral Attitude	33.40%	25.70%	37.50%

**Table 2.** Attitudes of providers towards cesarean section

	Obstetrician	Midwife	Nurse
Negative Attitude	8.30%	8.60%	12.50%
Positive Attitude	0.00%	4.30%	0
Neutral Attitude	91.70%	87.10%	87.50%

**Table 3.** The relationship between some demographic variables and attitudes toward normal vaginal delivery

	Positive Attitude	Negative Attitude	Neutral
Length of experience in profession			p=0.053
1-5 years	63.80%	0	36.20%
6-10 years	68.20%	0	31.80%
11-15 years	72.70%	0	27.30%
More than 15 years	81.80%	0	18.20%
Marital status			p=0.084
Single	77.30%	0	22.70%
Married	65.90%	2.40%	31.7

**Table 4.** The relationship between some demographic variables and attitudes toward cesarean section delivery

	Positive Attitude	Negative Attitude	Neutral
Length of experience in profession			p=0.122
1-5 years	2.60%	7.9	89.50%
6-10 years	0.00%	3.50%	96.50%
11-15 years	0.00%	18.20%	81.80%
More than 15 years	0.00%	13.60%	86.40%
Marital status			p=0.224
Single	0.00%	9.90%	90.90%
Married	3.70%	8.50%	87.80%

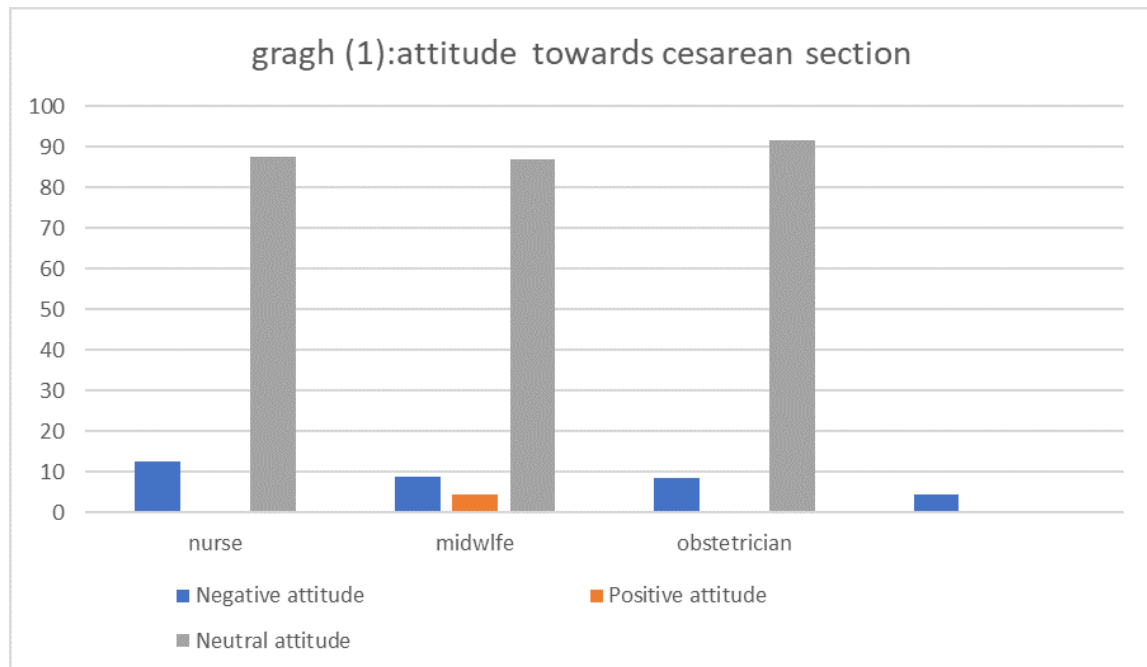
Seven participants had records of years less than one year, 38 between 1-5 years, 22 participants 6-10 years, 11 participants 11-15 years and 22 participants had over 15 years of experience. 16 people (15.4%) were doing Compulsory medical service programme, 24 people (23.1%) were contractual employees, 24 people (23.1%) were tentative employees and 32 people (30.8%) were permanent employees.

The average age of nurses in this study was  $33.1 \pm 5.01$ , midwives  $34.55 \pm 7.03$  and the average age of females was  $37.14 \pm 3.43$ .

21.2% of participants were single and 78.8% were married. In the present study, there was a statistically significant relationship between the age of service providers and attitudes toward natural childbirth ( $p = 0.058$ ) so that with the increasing of age, attitude toward normal delivery became more positive and young women had a more negative attitude toward normal delivery. Cesarean section was more positive. In addition, there was a significant relationship between age and attitude toward cesarean section ( $p = 0.069$ ) and at younger ages, the attitude toward cesarean section was more positive.

Regarding the questions related to the attitude toward natural childbirth in response to the question (natural childbirth is associated with unbearable pain and fear of childbirth), the majority of nurses and midwives agreed, but the majority of gynecologists (45.5%) disagreed. In response to the question (cesarean section is better than natural childbirth for maintaining sexual function and mental self-concept), most gynecologists (63.6%) and most midwives (64.3%) disagreed. 50% agreed and 50% disagreed while about fifty percent of nurses agreed and fifty percent of them disagreed.

Regarding the questions related to attitude toward cesarean section in response to the question "Cesarean section has the least risk for fetal distress", the majority of nurses (58.3%) and most gynecologists (72.7%) agreed and the majority of midwives (49.3%) disagreed. On the question "Even people with financial problems prefer cesarean section", most nurses (38.5%) disagreed, while most midwives (49.3%), most operating room technicians (62.5%) and most gynecologists (50%) agreed.

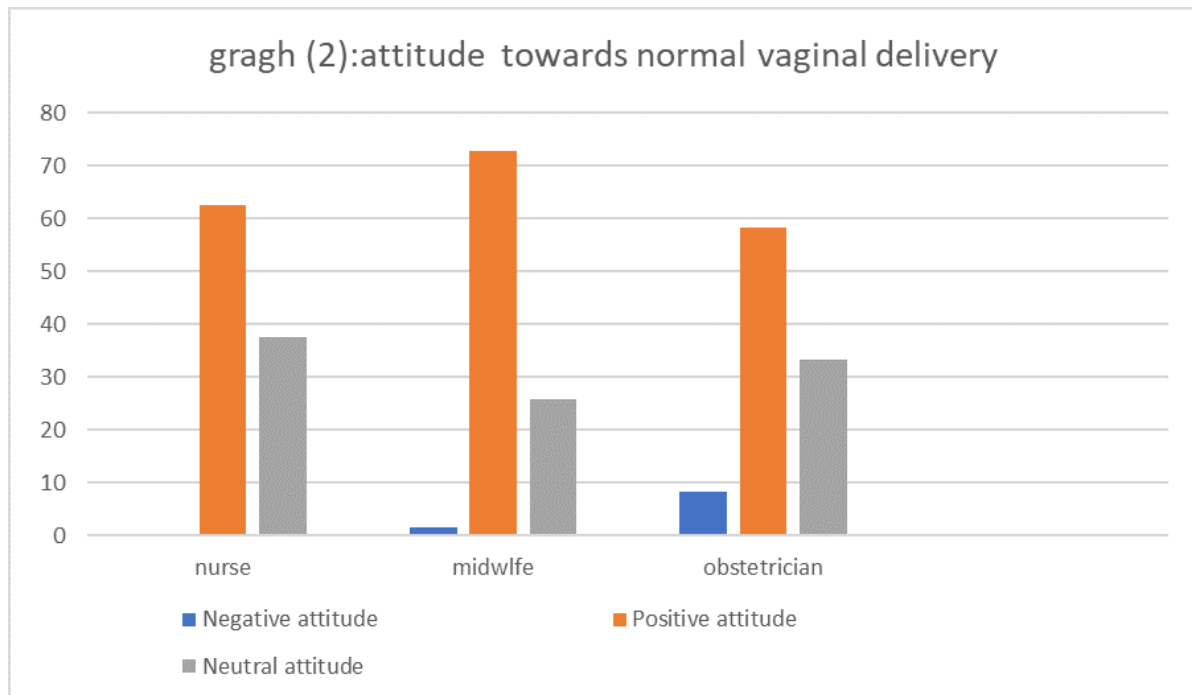


Regarding attitude toward cesarean section and regarding the question (even people with financial problems prefer cesarean section), most gynecologists (62.5%) and most midwives (54.3%) agreed, while 38.5% of nurses agreed and 38.5% of them disagreed.

Regarding the question (cesarean section reduces the risk of pelvic floor injury), most midwives (48.6%) disagreed while most gynecologists (58.3%) and most nurses (53.8%) agreed. In other questions, the attitudes were the same.

In this study, there were statistically significant relationship between work experience and marital status and attitude toward normal delivery (Table 3), while there were no significant relationships between work experience and marital status and attitude toward cesarean section (Table 4).

The findings of this study showed that the majority of gynecologists (91.7%) and the majority of midwives (87.1%) and most nurses (87.5%) had neutral attitudes toward cesarean section. Not any of gynecologists' and nurses had a positive attitude towards cesarean section. Doctors had a more neutral attitude towards cesarean section than nurses and midwives.



In this study regarding attitude toward normal delivery, the majority of midwives (72.9%) and obstetricians (58.3%) and nurses (62.5%) had a positive attitude toward normal delivery, and none of the nurses had a negative attitude toward normal delivery. In addition, midwives' attitudes toward natural childbirth were more positive than those of physicians and nurses.

## DISCUSSION

The aim of this study was to determine the attitude of midwifery and childbirth service providers toward the type of delivery. Most of the evidence related to service providers is related to personal characteristics and there is little evidence about attitudes toward cesarean section. In this study, the majority of gynecologists (91.7%) and the majority of midwives (87.1%) and most nurses (87.5%) had neutral attitudes toward cesarean section. Obstetricians and nurses did not have a positive attitude towards cesarean section. Doctors had a more neutral attitude toward cesarean section than nurses and midwives. This issue, which in all occupational categories in this study, the attitude is neutral

towards cesarean section, can be due to the environment and harsh working conditions in Ganjavian Hospital in Dezful. This hospital is a teaching hospital and nursing, midwifery and medical students are receiving the necessary training courses, but there is no obstetrics resident in this hospital.

The reason for the great amount of neutral attitude towards cesarean section in gynecologists / nurses and midwives can be work pressure, a large number of shifts and large number of daily clients, so that despite awareness of the complications of cesarean section, there is not much negative attitude towards cesarean section and instead, there is much neutral attitude. Labor and natural childbirth require more care than cesarean section. In addition, the relevant stress is less. Ganjavian Hospital in Dezful is a referral center that is referred to from cities and even neighboring provinces for delivery, midwifery and gynecological care. In addition to work pressure, not supporting the medical staff in cases of medical errors and complaints can also be effective in neutrality of the attitude towards cesarean section. In Iran, the most common medical malpractice complaints are related to obstetricians and gynecologists.



In our study, there was a statistically significant difference between the age of service providers and the attitude towards cesarean section, so that the older the age was, the more negative the attitudes were towards cesarean section and at young age, the attitude towards cesarean section was neutral ( $p = 0.069$ ). Meanwhile, there was a statistically significant relationship between the age of service providers and attitudes toward natural childbirth ( $p = 0.053$ ), so that the older the age was, the more positive the attitudes were towards a childbirth.

In Josefsson's study, the older the age was, the more positive the attitude was toward cesarean section. In Parase's study, there was an inverse relationship between the age of gynecologists and cesarean section so that the younger the doctors were, the higher the rate of cesarean section was and younger doctors would perform higher percentage of cesarean section, which was related to clinical work experience, so that with the increasing of clinical work experience, the rate of cesarean section would decrease. In the present study, there was a significant relationship between work experience and attitudes toward normal delivery ( $p = 0.058$ ), but the relationship between work experience and attitudes toward cesarean section was not significant.

Sahlin argues that cesarean section indications have increased over time, and this may explain why older providers have a different attitude toward cesarean section than their younger counterparts [10]. In his study, Gunnervik found that older physicians reported more pressure from midwives to perform cesarean deliveries than younger physicians [11].

In Josefsson's study, in normal pregnancies and under normal circumstances, only 24% of physicians recommended cesarean section to their daughters. In our study, 30% of physicians recommended cesarean section to their daughters [12].

In our study, midwives' attitudes toward natural childbirth were more positive than those of physicians and nurses. The reason why midwives have a more positive attitude towards natural childbirth can be that midwives are more involved in natural childbirth than specialist doctors and usually control trouble-free deliveries. A study in Sweden found that midwives were less likely to oppose cesarean section than gynecologists. Cavallaro believes that deliveries supported by gynecologists and family physicians have a higher rate of cesarean section than midwives / nurses, which reflects their more favorable attitude towards vaginal delivery. A

study in the Netherlands found that different job attitudes may be due to traditional care models in which midwives/nurses have fewer medical attitudes toward childbirth than obstetricians. In Monari's study, midwives' attitudes toward cesarean section were different from those of gynecologists. In their study, midwives were less likely to believe that cesarean section was beneficial for the mother.

A simultaneous study by Magierło et al [1]. In Ukraine and Poland found that midwives believed that pregnant women should have the right to choose elective delivery. Magierło showed that the role of medical staff in accepting natural childbirth is very important for pregnant women.

Panda believes that the personal opinion of gynecologists has been a determining factor in deciding to have a cesarean section. Along with the personal characteristics of service providers and health factors, the findings showed that attitudes toward cesarean section had connections with the physician's decision to perform a cesarean section. In his study, Parase concluded that differences in the attitudes of service providers could lead to an increase in cesarean section.

Josefsson also concluded in his study that a prerequisite for a safe delivery for pregnant mothers is a close working relationship between the gynecologist / midwife and the nurse.

Cavallaro believes that there is a link between a favorable attitude towards cesarean section and a higher rate of cesarean section, and that efforts to reduce unnecessary cesarean section should be able to target the attitude of service providers.

In hospitals where obstetrics care is provided, midwives usually control smooth deliveries and nurses provide postoperative care, and the physician is the person who can make the final decision to have a cesarean section. The attitude of the providers towards the decision to perform a cesarean section is very important and obstetricians are the key decision makers and they determine the overall rate of cesarean section.

## CONCLUSION

Given that service providers each play a role in providing advice to mothers about choosing the type of delivery, inter-professional relationships in health care providers need to get broader. In addition to the individual characteristics of Service providers and health factors, the attitude of obstetricians can be a determining factor in deciding to

have a cesarean section. It seems that the level of interaction between mothers and care providers influences the decision on how to give birth.

Given that in our study, the majority of service providers had a neutral attitude towards cesarean section, the need to change attitudes in the form of training programs at the university level as a separate course title, as well as regular training programs in the form of in-service training can be effective. At present, training classes for pregnant mothers are held only with the presence of midwives. It is recommended that these classes be held with the presence of all midwifery and childbirth service providers (specialist doctors, nurses and midwives).

Cavallaro said in his study that regular audits and feedback on the rate of cesarean section in any clinical profession and regular training of midwifery and obstetrics service providers on cesarean section indications can be helpful in reminding them of the risks of cesarean section and in assisting them in performing vaginal delivery for complicated pregnancies. In this regard, the emphasis is on training women about the risks of cesarean section and improving the ways in which service providers adhere to protocols.

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#### CONFLICT OF INTEREST

This study did not have any conflict of interest for the authors.

#### ETHICS IN RESEARCH

This research project is approved by the ethics committee of Dezful University of Medical Sciences with the number IRDUMSREC1398012.

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