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Full length research paper

The study of knowledge and attitude of pregnant women concerning physiologic delivery at Fatemiyeh hospital Hamadan, Iran

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Although medical and technological advances in maternity care have drastically reduced maternal and infant mortality, their using that not based on scientific indications has changed physiological delivery into a surgical and medical phenomenon. Nowadays fear of delivery pain is one of the indications for cesarean. The most important reason for cesarean section is low knowledge of the process of normal delivery and lack of organized clinical behavior regarding issues. In this descriptive and analytical study, knowledge and attitude of 385 pregnant women were evaluated. Three questionnaires (demographic, knowledge, attitude) were used as data gathering instruments. Validity and reliability of questionnaires were checked. The mean score of knowledge in pregnant women was very low. The results showed that 83.4% of sample had low knowledge about physiologic delivery. Attitude of the majority of patients (79.2%) toward physiological delivery was moderate. The results of the study showed that the level of knowledge of pregnant women about safe and physiological delivery was very low. Thus, planning for educating them is essential.

Keywords : Knowledge; Attitude; Physiologic delivery

Introduction:

Childbirth is a natural phenomenon and its history backs to the human creation time and has been along with the evolution of human societies from the traditional to modern methods (Baniaghil *et al*., 2004). Delivery mechanism is a spontaneous process and requires no intervention (Scott *et al*., 2008) .Medical and technological advances in maternity care have drastically reduced maternal and infant mortality. However, improper use of these interventions without scientific and legal reasons converted normal and physiological delivery to surgical and medical phenomenon. Unfortunately these interventions have been common and routine. If used properly, they can be life-saving procedures. (Jansen *et al*., 2013). Although the number of normal physiological delivery is relatively reduced ,studies have shown in

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uncomplicated and low risk pregnancies, not using advanced technological interventions has been associated with better physiological results (Birkhead *et al*., 2012) .Labor is a normal physiological process, but is usually associated with pain and discomfort. In many studies numerous methods have been used to relieve labor pain. These include pharmacological (epidural, opioids, inhaled analgesia) and non-pharmacological (hypnosis, acupuncture) methods of pain management. Approximately all pharmacological drugs are transferred from placenta . These drugs have side effect for fetus (Jones *et al*, 2012).Studies have shown that decisions for the type of delivery are influenced by various parameters. One of them is the tendency of women to choose the method of delivery. And in the formation of women's desire, knowledge and attitude toward labor is very important. (Pillitteri *et al*., 2003) . One of the reasons for increased cesarean delivery is the lack of knowledge and an organized approach for raising awareness among pregnant women in this field (khani *et al*., 2005) . It seems lack of awareness to the process of vaginal delivery and fear if it may have contributed to rising caesarean (Manthata *et al*., 2006) . Sharifirad *et al*, 2012 reported that approximately 70% of women have negative attitudes to vaginal delivery. Mother's labor pain have been more tolerable with a positive attitude (Saista *et al*., 2003). An important property of positive attitudes is influence on human behaviors and actions (Ulsen *et al*., 1998).Since the human's attitude is created by knowledge, changing attitude increases awareness. Preparation for physiological birth is one of ways for changing the attitude toward delivery. Physiologic birth is the vaginal delivery with minimal intervention. Physiological birth, is trusting to mother's body for delivery. In this type of delivery method pregnant women attend delivery preparation classes and they learn how to overcome fear and pain. The classes start from twentieth weeks of pregnancy. These classes are conducted weekly sessions for 8 weeks. Exercising during pregnancy and delivery, breathing and relaxation techniques and natural process of birth are taught in these classes. (Soufizadeh *et al*., 2013).

In this study we assessed knowledge and attitude of pregnant women about physiologic delivery.

Methods:

This is a descriptive - analytical study. This study included 385 pregnant women who were referred to the Fatemiyeh hospital in Hamadan for prenatal care in 2014. In this study, three questionnaires including demographic questions and questions about attitudes and knowledge toward physiological birth were used. Validity of the questionnaire was confirmed by content validity. Their reliability was confirmed through test. Knowledge questionnaire included 17 and attitude questionnaire included 12 questions. For knowledge the total scores of the subjects were considered according to the correct answers in knowledge questionnaire. As to knowledge the total scores of the subjects gained for the correct answers. The correct, wrong, and don't know answers were scored 2, 0, and 0 respectively. Attitude questionnaire included 12 items based on the Likert scale (strongly agree, agree, neutral, disagree and strongly disagree). For correct to wrong answered 5 to 1 point were considered.(Tables 1 and 2) Inclusion criteria included: Singleton pregnancies - Absence of pregnancy complications (bleeding, preeclampsia, eclampsia, leakage of amniotic fluid, infection, etc) physical and mental health - the absence of previous participation in physiological childbirth preparation classes. and Chi-square and t-test were run via SPSS software version 16 to analyze the data. Significance level of 0.05 was considered statistically.

Results

The majority of the participants (62.5%) had experienced their first pregnancy and (56.6%) had moderate satisfaction of their previous birth. And more educated individuals (40.3 percent) had diploma degree. Also (93.5%) of pregnant women were housewives and (96.1%) were living in the city. Most site of receiving prenatal care (67.3 percent) were from health clinics. The age of the majority of participants in this study (36.4%) ranged from 25-30 years old. The majority of patients (44.9%) belonged to the families whose monthly income ranged from between 100-200 dollars. The results showed that (83.4%) women had low, (15.3%) moderate, and (1.3%) high knowledge of physiological labor. Also majority of patients (79.2%) had moderate, (4.9%) low, and (15.8%) excellent attitude towards the physiological delivery. (Tables 3and 4) Knowledge with some demographic characteristics such as gravity($p=0.01$) education ($p=0.002$) and job of woman ($p=0.048$),site of received prenatal care ($p=0.001$), and amount of income of the family had a significant relationship (0.026). Also attitude with some demographic specifications such as education ($p=0.036$) and job of woman($p=0.04$) and site of received prenatal care ($p=0.06$) had a significant relationship. (Table 5) After Bonferroni correction test, it was found that knowledge with significantly difference is the least in under diploma education, none employment mothers, prenatal home

Table 1: Knowledge of pregnant women about physiologic delivery (percent)

Expressions	Yes	No	Don't know
Special equipment is required for physiological delivery.	11.9	31.4	56.6
The physiological delivery needs trained personnel.	53.5	5.7	40.8
Physiological delivery takes place at a particular center.	45.5	10.4	44.2
The physiological birth is done in a Fatemiyeh hospital maternity ward .	37.4	6.8	55.8
In physiological delivery injection pressure is used .	10.6	29.9	59.5
Physiological childbirth needs training and preparation before delivery.	27.0	20.0	53.0
The presence of a person with mother in physiological labor is permitted .	28.6	13.5	57.9
In physiological delivery the patient's spouse will receive the necessary training .	31.9	6.5	61.6
The physiological delivery does not need exercise before pregnancy.	23.4	19.0	57.7
The physiological delivery can lead to suture in the vaginal canal.	23.1	12.7	64.2
The physiological childbirth increases the risk of bleeding after delivery .	20.5	9.1	70.4
There is sexual dysfunction after physiological delivery .	10.6	15.1	74.3
The physiological childbirth labor is the same with painless childbirth.	14.0	21.8	64.2
Complications in physiological birth more than normal childbirth.	31.7	7.3	61.0
The cost of labor in physiologic delivery is less than normal childbirth.	10.4	14.5	75.1
The hospital stay in the physiological delivery is less than normal childbirth.	14.8	10.4	74.8
The physiological birth focuses on maternal and fetal health .	57.4	2.1	40.5

Table 2: Attitude of pregnant women about physiologic delivery (percent)

Expressions	Totally agree	Agree	No Comment	Disagree	Totally disagree
Choosing physiological delivery is a reason for high social class.	4.2	16.4	37.9	28.6	13.0
The main reason of don't choosing physiological delivery is fear and lack of sufficient knowledge about it.	7.3	42.3	38.7	6.5	5.2
With practice and learning can easily experience the physiological delivery.	11.9	41.1	41.8	2.9	2.3
Physiological birth is the best method of delivery.	5.7	23.4	61.8	6.5	2.6
Cesarean section in my opinion is the best method of delivery.	1.8	10.1	43.1	28.8	16.1
Consulting about physiological delivery during pregnancy can help prevent sky rocketing the rate of cesarean.	11.7	40.5	42.1	4.4	1.3
Physiological birth vaginal delivery generally is easier than common vaginal delivery .	4.2	22.1	62.5	9.1	2.1
Low cost of labor whereby women are being honored.	1.6	8.8	60.5	18.2	10.9
More attention to patients during physiological delivery is better than common vaginal delivery .	2.1	29.4	62.1	4.4	2.1
Inappropriate contact of staff in public hospitals during normal delivery, causing the reluctance of women to physiological childbirth method.	7.5	34.5	49.9	6.5	1.6
Appropriate contact hospital staff in private hospitals, causing women tend to use physiological labor.	7.5	32.7	54.0	3.6	2.1
Physiologic delivery is similar to common normal deliveries.	0.5	18.7	61.0	16.4	3.4

Table 3: Distribution of Attitude in the subjects

Attitude	Frequency	percent
low	19	4.4
moderate	305	79.2
Excellent	61	15.8
total	**385**	**100**

Table 4: Distribution of knowledge in the subjects

Knowledge	Frequency	percent
low	321	83.4
moderate	59	15.3
high	5	1.3
total	385	100

Table5: Relation between knowledge and attitudes of pregnant women with demographic characteristics

variable	Frequency (Percent)	Knowledge level(Percent)			P.value	Attitude level(Percent)			P.value
		Low	Medium	High		Low	Medium	High	
Gravity									
1	62.5	7.4	82.5	11.1	0.01	5	75	20	
2-5	37.5	14.5	75.5	10.0		5	84.5	10.5	0.21
Education									
Under Diploma	36.6	90.8	8.5	0.7		3.5	86.5	10	
Diploma	52.8	81.8	17.2	1	0.002	6.4	75.9	17.7	
Academic	10.4	65.9	29.3	4.9		2.4	70.7	26	0.036
Mothers Job									
Employment	4.7	84.5	14.1	1.4		5.3	80.3	14.4	
None employment	93.5	58.5	41.2	0	0.048	0	64.7	35.3	0.04
Student	1.8	85.7	14.3	0		0	57.1	42.9	
Prenatal care									
Home care	18.7	76.4	20.8	2.8		4.2	81.9	13.9	
Public health centers	67.3	89.1	10.1	0.8		5	81.8	13.2	
Private health centers	14	64.8	33.3	1.9	0.001	5.6	63	31.5	0.06
Family Income($)									
Under 100	21.3	78	20.7	1.2	0.026	7.3	96.5	23.2	0.32
100-300	76.8	85.5	13.2	1.3		4	79	17	
Over 300	2.1	62.5	37.5	0		0	87.5	12.5	

care and family income under 100$. And also attitude is the least in under diploma education, none employment mothers, prenatal home care.

Conclusion:

This study investigated the knowledge and attitudes of pregnant women concerning physiologic delivery at Fatemiyeh hospital in Hamadan**.** In this study, 385 pregnant women participated**.** The vast majority (43.2%) of women had fear of labor and (83.4%) low knowledge, and only (15.8%) excellent attitude about the physiologic delivery. The majority of pregnant women did not have positive attitude towards the physiologic delivery. Labor is one of the most severe pains that women experience during their lifetime. And yet this pain can cause anxiety, fear and apprehension toward subsequent pregnancies (Di Renzo etal.,2003). The most common reason for cesarean delivery is fear of labor pain and lack of relief methods (Aram *et al*.,2002).Haines *et al* 2012 in their study entitled" *the influence of fear and attitudes of women on type of delivery*" concluded that epidural anesthesia and elective cesarean is higher in women with fear of childbirth .Elvander *et al* 2013 in a prospective study of 3006 pregnant women in the third trimester of pregnancy and one month after childbirth in the assessment of fear of childbirth concluded that the rate of caesarean in women with fear of childbirth was higher than the group with low fear (Elvander *et al* , 2013). Aasheim in a study of women's experience of childbirth in older nulliparous, found that nulliparous women who were 32 years and older were more concerned about the delivery than younger women and until 6 months after childbirth described as the worst experience in life (Aasheim *et al*., 2013). Most women are not aware of the risk of cesarean delivery compared with vaginal one . Breathing problems in the newborn and maternal mortality are higher in cesarean delivery. In the last years, the rate of cesarean delivery in most countries has dramatically increased. As cesarean rates has been in the United States from 5% in 1970 to 32.2% in 2009 and if this trend continues, it is anticipated that this rate will reach 56% in 2020 (Solheim *et al*., 2011 ; Martin *et al*., 2013). One goal of the health of pregnant women, based on the World Health Organization recommendation, is reducing the rate of cesarean delivery to 15%. (Conference Panel.,2010).In Iran almost 40% of the births in public and 90% in private hospitals are performed by cesarean (Torkzahrani, 2008). Reducing the fear of labor can lead to a reduction in the cesarean rate. Lack of knowledge about physiological and normal delivery and fear of labor can cause maternal anxiety during this period (Saisto *et al*., 2001). An important reason for not wanting a normal childbirth is fear of labor pain and lack of sufficient knowledge. For a change in attitudes, pregnant women should be aware of the normal and physiologic delivery . Since the attitude comes after information thus continuing education of pregnant women, in order to raise their awareness and to protect and promote their health and take care of their fetuses is required. So young pregnant women need more education about a variety of delivery methods. And changing the attitude of pregnant women needs to education and counseling about the physiologic delivery for them. Based on this study counseling pregnant women with low education and income and housewives is necessary.

Finally face to face education about the advantages of natural childbirth and disadvantages of cesarean section is recommended for pregnant women.

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