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A STUDY ON MIDWIFERY STUDENTS' KNOWLEDGE AND ATTITUDE TOWARDS PHYSIOLOGIC DELIVERY IN NURSING AND MIDWIFERY SCHOOL, KERMANSHAH, 2012, 2013

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ABSTRACTS
Today, it is believed that the rate of medical interventions during pregnancy and labor is reduced in all developed countries. Therefore this study was carried out with the aim of determining knowledge and attitude of midwifery students about physiologic delivery in school of Nursing and Midwifery Kermanshah in 2012-2013. The present research was carried out as a descriptive – analytic study among 67 midwifery students in Kermanshah Nursing – midwifery faculty during 2012-2013. Data were collected via interview and questionnaire. Validity and reliability of questionnaire were evaluated by test – retest exam and experts opinion. Data were analyzed by SPSS software.74/6 % (50) had moderate knowledge and 59/% (40) had good attitude. There were a significant relationship between subjects knowledge and their age (p=0.022) and educational level (p=0.024) so that the knowledge amount (p=0.024) in a continuous group was more than the discontinuous group. Also attitude of those who have participated in prenatal fitness classes was not favorable more than those who haven't participate in these classes (p=0.014). As today's students will be the future midwives and they are required to advocate natural childbirth and physiology delivery therefore Schools of Nursing and Midwifery are responsible to promote physiologic birth and reduce caesarean sections through introducing specific credits into midwifery curriculum.

KEY WORD: Knowledge, Attitude, Physiologic delivery, Midwifery student.

INTRODUCTION

Pregnancy is a physiological phenomenon the end of which is childbirth, an event accompanied by pain, fear and anxiety. Delivery is a multidimensional process consisting of physical, social, physiological, cultural, and psychological aspects. It is considered a critical experience in women lifespan.[1] The fear of delivery pain causes mothers to prefer cesarean. The same as other surgeries cesarean has some consequences one of which is that the risk of mothers' death is multiplied by four times and the caesarean newborns are more in danger of being immature. The mothers can enjoy a delighted and successful experience after passing a physiological delivery.[2] Just like any other mammals, the condition for delivery as a physiological process has been provided by God so that it could be carried out without human intervention.[3]

Physiologic delivery having less pain considers the mother's reverence and is carried out with the least delivery interventions. Before delivery, the mother attends some classes to get ready and to be familiar with different delivery methods.[4] She freely chooses the delivery method and is accompanied to the delivery room. In physiologic delivery any unnatural intervention such as tearing the amniotic membrane is prevented and an attempt is made to lessen the pain and to make the delivery a delighted activity for the mother. From among the methods which don't need any medicine and which are mothers' favorite, one can refer to comforting and breathing techniques, position movement, massaging, water therapy, heat therapy, cool therapy, using religious songs, Quran tune and music, needle medicine, pushing therapy,[5] odor therapy, using nerve electronic frequencies, hypnotism,[6] basin specific movements using delivery ball.[7]

Saito et al (2003) believe that the delivery pain is more relieved with the mother's positive attitude.[8] Also, Robertson et al (2008) assert that some factors as culture, society, environment, family and the nurses' support are influential on mothers' personal experience of the delivery pain.[5] Among the other factors that help mothers and medical team to select the delivery method and to create a happy feeling are: a real relationship between mother, midwife, and the doctor, real trust imagination, respect, professional midwifery skill, the ability to use delivery technologies in emergencies, keeping calm and conveying it to mothers. A good interaction between midwife and the mother during the delivery not only decreases caesarean but also decreases the death rate among mothers.[9,10] During the last two decades in our country some unnatural, unnecessary interventions in physiologic delivery has become customarily. It seems one of the reason to use caesarean is the sick' ignorance and improper training and right attitude deficiencies during academic studies.[11] The medical community personnel's' increasing eagerness to do caesarean is incredible compared to other countries. The reason is medical students' dissatisfaction of the training given coming from their low knowledge of Caesarean benefits and defects.[12]

It seems that the medical personnel training to choose the right delivery method as well as their knowledge and the kind of attitude they have is not enough. This suggests insufficient or wrong knowledge even in trainers and deficiencies in delivery training programs.[13] In a study in Norway up to 98 percent f the deliveries were physiologic.[14] But in another study up to 46 percent of female physician doctors chose caesarean either for themselves or their wives.[15] Public heath centers are the most influential group after doctors to persuade mothers choose physiologic delivery or caesarean.[14] Considering that midwives as the main member of delivery supervision have a big responsibility, their skillful training is of utmost importance in decreasing the number of mothers and newborns death.[13] In developed countries such as England and Netherlands, midwives have the responsibility of most midwifery supervisions in physiologic cases, guidance of physiologic deliveries, and periodical inspection in healthy women, recognizing and curing cases as vaginitis, doing the regular services and having the responsibility of training planning and it's conducting. As the first person in healthcare team, the midwife in contact with the pregnant mother finds out her problems. With regard to the point that midwives can have a significant role in promoting the health care level in the society as well as helping mothers in choosing the delivery method, their knowledge and increasing their capabilities in decision making improves their performance.[13] One of the factors which reflect an efficient educational planning is an evaluation of the knowledge and knowledge of the graduated students in the related courses. Hadian et all (1385) investigated the effect of training on knowledge and attitudes of midwives performance on how to relieve the delivery pain without drugs. Their study revealed that before training 6/96 of the midwives who had little knowledge on how to relieve the delivery pain now after the training 3/59 of them had an average knowledge and only 1/5 of them had low knowledge ($p<001/0$, $t=67/18$). Before the training, 3/98 of midwives and after the training all midwives (100 percent) had positive attitude to the methods of relieving delivery pain.[17] With this regard, the researcher made an attempt to study the knowledge and attitude toward physiologic delivery among midwifery students in Nursing and Midwifery school, in Kermanshah in 1391-1392 as this was a need for students to learn how to provide safe and healthy services. This is accomplished by increasing their knowledge of the damages caused by health protection. A comprehensive health program improves the sick safety globally and consequently prepares the students for trustful clinical treatment. With regard to the present situation, one can determine the training shortcomings and problems. Also in future training programs through enhancing students' knowledge and skill it is feasible to pave the way for midwifery graduates to recognize the patients' emergent and current needs and to expand their services to promote the family and society health.

Methodology

The present research was carried out as a descriptive – analytic study among 67 midwifery students in Kermanshah Nursing – Midwifery faculty. The participants were 67 senior students studying in Kermanshah Nursing – Midwifery faculty in 1391-1392 who had passed their theoretical credits and were working on their practical ones. To gather the data the researcher provided a questionnaire as the instrument of the study. After that the validity and reliability of the questionnaire was ensured and the necessary permissions from research centers were obtained, the researcher himself used the questionnaire personally to ensure the results. The method to gather the data was interview and the instrument of the study was a researcher-made questionnaire. The questionnaire including 66 questions consisted of three sections. The first section was related to personal information of the participants including 15 questions about age, degree etc. The second section including 28 questions was related to the participants' knowledge regarding the physiologic delivery. The third section included 28 questions related to the participants' attitudes towards the delivery. In the "knowledge" section the option "I don't know" was deleted and every correct answer was allocated '1' and every false answer '0' and they were classified under three levels as high (18-23), average (12-17) and low (0-11). The 'attitude' section according to Lanker was divided into five groups ('1' completely disagree and 5 completely agree). Then it was grouped under three levels of good (108-140), average (85-107), weak (28-84). In this research content validity and reliability of the instrument used to gather data was ensured. The questionnaire was investigated by the midwifery councils and a group of women physician

doctors. At the end the data gathered was analyzed by means of SPSS version 16. To this end, first by means of library studies and the researches done on physiologic delivery, the questionnaire was prepared by the researcher. In the questionnaire the viewpoints of some Nursery and Midwifery academic members and physician doctors were used and finally the necessary modifications were carried out. To ensure the reliability of the questionnaire the test retest method was used. To do this first some 10 people who had the qualifications of the participants were interviewed and after 10 days the same questionnaire was completed changing and removing 10 percent of the questions. The reliability was calculated by means of Kuder Richardson formulas. Moreover the internal validity was determined by Cronbach's alpha.

The results

From among 67 students under study, 67 participated answered the questionnaire completely. 74/6 percent (50 participants) had average knowledge and 59/7 percent (40 participants) good attitude (table 1). The average age of the participants was 23/05±2/87 where the youngest was 20 years old and the oldest 33. 76/1 percent (51 participants) were single and 23/9 percent (16 participants) were married. 76/1 percents (51 participants) were students of continuous B.S. and 23/9 percent (16 participants) were students of non-continuous B.S. The largest number of participants (27), 40/3 percent of students was in semester 6 and 40/3 percent of them had entered university in 1389. 52/2 percent (35 participants) were interested in their course. 64/2 percent of them had no midwifery experience and 74/6 percent of them were unemployed and those who were employed had 11 months (%4/5) job experience. The results showed that the average of knowledge was 15/06±2/65, the least of which was 6 and the most was 20 and the average of attitude was 109/97±10/44, the least of which was 84 and the most 130. To determine the significant and no significant relationship between students' knowledge and attitude toward the physiologic delivery Chi-square test was used. The results were 90 significant at P<0/05. The relationship between the age of participants and their knowledge was significant at P<0/022 and the degree of knowledge and attitude in age group 20-24 was more. The students' course was also significant so that knowledge was significant at P=0/24 more at continuous course than in non-continuous. Also with regard to participation in delivery fitness classes (P=0/014), the results showed that the attitude of those who participated in such classes was less than those who had not participated (Table 3&4).

Table 1: The frequency distribution (number and percent) of participants according to their knowledge and attitude of physiologic delivery

Knowledge				Attitude	
Total	High	Average	Low		
1 1.5	0 0	0 0	1 1.5	Number Percent	Weak
26 38.8	4 6	21 31.3	1 1.5	Number Percent	Average
40 59.7	9 13.4	29 43.3	2 3	Number Percent	Good
67 100	13 19.4	50 74.6	4 6	Number Percent	Total

Table 2: The frequency distribution (number and percent) of participants according to their semester, participation in fitness classes, information source, the degree of knowledge of physiologic delivery and their attitude towards it

Percent	Number	Variables	
22.4	15	3	Semester
1.5	1	4	
40.3	27	6	
4.5	3	7	
31.3	21	8	
44.8	30	Yes	Participation in delivery fitness classes
55.2	37	No	
19.4	13	Good	Knowledge degree
74.6	50	Average	
6	4	weak	
59.7	40	Good	Attitude
38.8	26	Average	
1.5	1	weak	
92.5	62	Academic education	Reference
6	4	Books and magazines	
1.5	1	Other references	
100	67	Total	

Table 3: Frequency distribution of knowledge related to the physiologic delivery

Knowledge								Variables	
Total		Weak		Average		Good			
Percent	Number	Percent	Number	Percent	Number	Percent	Number		
100	49	4.1	2	71.4	35	24.5	12	20-24	Age group P=0/022
100	14	21.4	3	78.6	11	19	0	25-33	
100	63	7.9	5	73	46	19	12	Total	
100	51	3.9	2	70.6	36	25.5	13	continuous	Course P=0/024
100	16	12.5	2	12.5	14	0	0	Non continuous	
100	57	6	4	74.6	50	19.4	13	Total	
100	30	0	0	66.7	20	33.3	10	Yes	Participation in pregnancy fitness classes P=0/014
100	37	10.8	4	81.1	30	8.1	3	No	
100	67	6	4	74.6	50	19.4	13	Total	

Table 4: Frequency distribution of participants' attitude towards the physiologic delivery according to some variables

Attitude type								Variables	
Total		Weak		Average		Good			
Percent	Number	Percent	Number	Percent	Number	Percent	Number		
100	49	0	0	36.7	18	63.3	31	20-24	Age Group P=0/093
100	14	7.1	1	50	7	42.9	6	25-30	
100	63	1.6	1	39.7	25	58.7	37	Total	
100	51	0	0	35.3	18	64.7	33	continuous	Course P=0/109
100	16	6.2	1	50	8	43.8	7	Non continuous	
100	67	1.5	1	38.8	26	59.7	40	Total	
100	30	0	0	30	9	70	21	Yes	Participation in pregnancy fitness classes P=0/391
100	37	2.7	1	45.9	17	51.4	19	No	
100	67	1.5	1	38.8	26	59.7	40	Total	

95/52 percent of the participants (64 students) have passed the clinical credits according to the schedule. The youngest participant was 20 and the oldest 33 and the average age of the participants was 23/05. 76/1 percent of them were single and 64/2 percent of them were had no midwifery job experience. 55/2 percent (37 students) of them have not participated in pregnancy fitness classes. The reference to collect data from 62 of them (92/5 percent) was academic training (table 2).

73/1 percent (49 students) of the participants under investigation had experienced the physiologic delivery accompanied by their trainers while 85/1 percent (57 students) had observed it. 74/6 percent (50 students) had average knowledge and 59/7 percent (40 students) had good attitude. The lowest knowledge point was 6 and the highest was 20. With regard to attitude the lowest point was 84 while the highest was 130. The highest good attitude (25/5 percent) was reported for continuous M.S. students. The highest degree of good knowledge (28/6 percent) and average knowledge (66/7) percent was reported for students semester 6. The highest degree of low knowledge (83/3 percent) was reported for the students semester 3. Also the highest degree of good attitude (66/7 percent) and low attitude (33/3 percent) was seen in students semester 6 and the highest degree of weak attitude (6/7 percent) in students semester 3 (figure 1, 2).

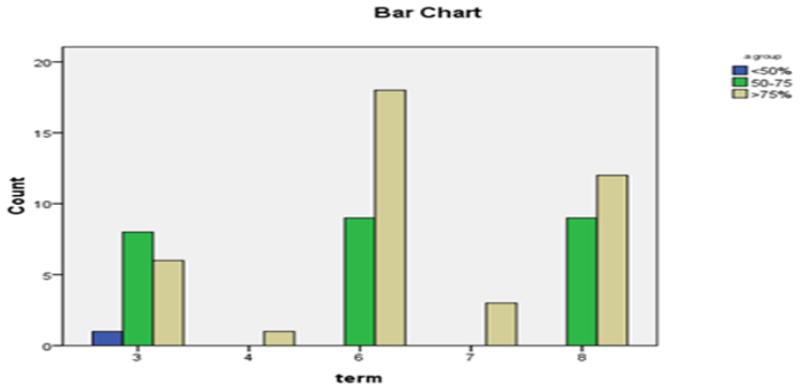

Figure 1: The relative and absolute frequency distribution of participants according to semester and their knowledge on physiologic delivery

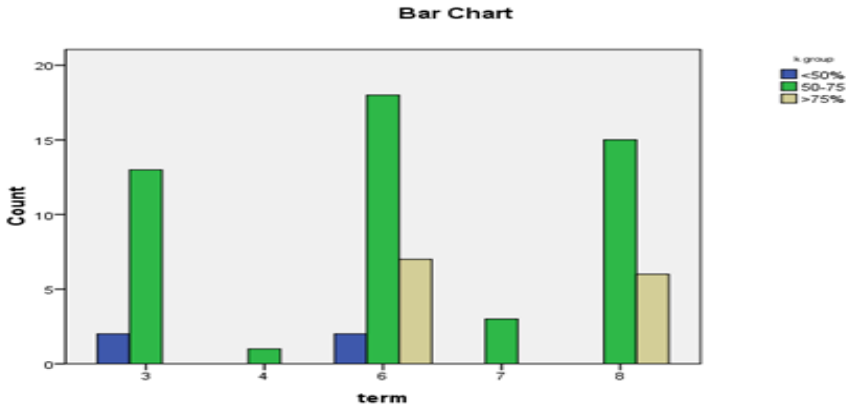

Figure 2: The relative and absolute frequency distribution of participants according to semester and their attitude towards physiologic delivery

72/5 percent of participants who were single had average knowledge and 60/8 percent of them had good attitude. The highest degree of average knowledge was reported for the students who had entered university in 1388 (75 percent) and 1389 (66/7 percent) (figure 3).

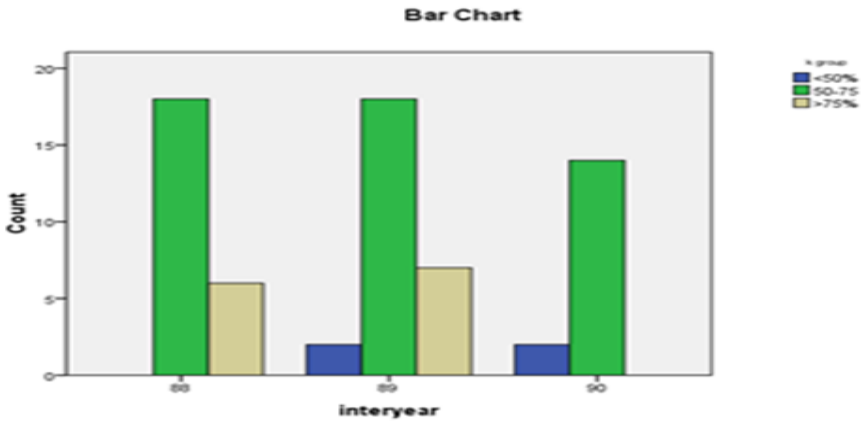

Figure 3: The relative and absolute frequency distribution of participants according to semester they entered university and their knowledge towards physiologic delivery

74/3 percent of the participant who were interested in their course had weak knowledge and 68/5 percent of them had good attitude. 75 percent (48 participants) who had passed the clinical credits had average knowledge and 57/8 percent of them had good attitude. 66/7 percent of the students who had participated in delivery fitness classes had average knowledge and 70 percent of them had good attitude. 72/6 percent (45 participants) of those whose reference to gather information was academic training had average knowledge and 61/3 percent (38 participants) of them had good attitude. 69/4 percent (34 participants) who had experienced physiologic delivery accompanied by a trainer had average knowledge and 63/3 percent (31 participants) of them had good attitude (figure 6,7). Moreover, 71/9 percent (41 participants) of those who had only visited physiologic delivery had average knowledge and 63/2 percent of them had good attitude.

RESULTS AND DISCUSSION

The results of this study reveal that the knowledge of the majority of midwifery students about physiologic delivery is average. This confirms the point that if there are plans to spread physiologic delivery, the midwifery students have the necessary capability and efficiency to be trained to accomplish such a purpose. In fact, university is the best place to transfer knowledge on physiologic delivery and to internalize the positive attitude of students towards it. The result of the research done by Rahimi et al (1390) is similar to the present study so that the majority of participants in the study had average knowledge.[18] Sharghi et al (1390) revealed that the knowledge of pregnant women was average in relation to delivery methods so that the average knowledge point of mothers who had experienced caesarean was more than mothers with physiologic delivery[19] and these results ignoring the participants is different from the present study. This proves the inefficiency of the training provided in health care

centers. It can be said that the more the midwifery graduates are knowledgeable and capable in physiologic delivery, the more they can serve as bridges to transfer knowledge and positive attitudes towards physiologic delivery in pregnant women. The results of the research carried out by Tofighy Niaki et al (1389) revealed that there is a significant statistical difference in knowledge and attitude of pregnant mothers after the first delivery and after the training given. In this study, choosing the right kind of physiologic delivery was preferred before and after the delivery.[17] This confirms the importance of training in promoting the fitness, attitude and using the methods of relieving delivery pain in midwifery graduates. It means that if the nursery schools, which have the responsibility of educating midwives to do physiologic delivery, make their attempts to decrease the number of caesarean, they will succeed and this consequently results in healthy mothers and newborns. Keramat et al (1390) showed that midwifery students and midwives have the average knowledge about delivery and this is a sign of planning to train more in this regard.[21] These results are, to some extent, in line with the results of the present study regarding physiologic delivery so that insufficient training is seen in many aspects in delivery such as social services and physiologic delivery. The solution is to present specific credits and to use training methods so as to increase related skills and regulate training programs. Moreover the results of the present study revealed that the majority of midwifery students who participated in the study had good attitude to physiologic delivery. The results of the study by Stoll et al (2009) in relation to the attitudes of Colombian, Canadian and English students about physiologic delivery and caesarian is similar to the present research so that 91 percent of male and female students had good attitude to physiologic delivery and only 9 percent of them had positive attitude to caesarian. The female students had declared that more self esteem is the determining point in preferring the physiologic delivery. Those who preferred physiologic delivery had referred to the fear of caesarian as the main reason for delivery. The result of this study revealed that applying suitable training strategy for university students can reduce the caesarian fear.[22] Bahmanesh et al (1385) with regard to the knowledge and attitude of the pregnant mothers towards physiologic delivery showed that 38/6 percent of participants had weak knowledge, 50/9 percent average knowledge, 10/5 percent good knowledge and 68/7 percent positive attitude and the rest neutral attitude. This result is similar to the results of the present study. The above study also revealed that participation in delivery fitness classes increased significantly the knowledge of the mothers under the study and 59/8 percent of them who had taken part had average knowledge about physiologic delivery. Also, 13/7 percent of these mothers had good knowledge about physiologic delivery.[23] While in the present study the attitude of those who had participated in delivery fitness classes was lower than those who had not. This could be attributed either to the inefficiency of the classes or the unsuitable content which was not prepared well. So considering the knowledge questions and the strictness of the role of training and the ways theses classes are held, one can think of necessary scientific material to be included in such programs. The result of the study carried out by Cleeton (2001) about the knowledge and attitude of students studying in a faculty in New York showed that from their view point delivery is a miracle phenomenon accompanied by fear of pain. The students first knew that the delivery happens in hospital where they are safe and relaxed and where there drugs against pains. The students were interested in visiting childbirth and wanted to know the dangers and benefits of hospital processes involved in delivery as well as mental and emotional side. Finally the study revealed that the fear of the delivery is related to lack of sufficient training. The result of this study does not confirm the result of the present study and this could be attributed to the point that the present study is carried out on midwifery students. The result of the present study revealed that the highest percentage of average and good knowledge and attitude was among the 6th semester continuous B.S students. Kramat et al (1390) reported the similar. In their study the knowledge and attitude of the continuous M.S students was more than non-continuous B.S students. This can be attributed to lager number of the credits on physiologic delivery which they pass during four years of study in university.

CONCLUSION

As in the present study, the highest percentage of good knowledge and attitude towards physiologic delivery is seen in student's semester 6 of non-continuous B.S. and that midwifery students have the most important role in increasing the number of physiologic delivery in health care centers, it is suggested that planning be considered to include more credits into curriculum of midwifery students. Moreover, workshops can be held for such students to propagate physiologic delivery with the aim of promoting pregnancy hygiene and reducing the number of caesarians.

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