Effectiveness of Childbirth Classes Regarding Labor Knowledge and Practices on Primigravida Woman in Al-Elwiya Maternity Teaching Hospital

فاعلية صفوف الولادة المتعلق بمعارف وممارسات المخاض على نتائج المراءة البكرية في مستشفى العلوية التعليمي للولادة

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الخلاصة:

خلفية البحث: صفوف الولادة تساعد وتهيئ المرأة الحامل للولادة وذلك لتقليل المضاعفات ، وزيادة الثقة في قدرة الأم ، وفهم كيفية التعامل مع الألم أثناء المخاض والولادة.

الهدف : لقياس مدى فعالية البرنامج التعليمي للمرأة الحامل البكرية.

المنهجية: تصميم شبه تجريبي ، لستين امرأة حامل بكرية والذين شاركوا في البرنامج (30 امرأة لمجموعة الدراسة و 30 للمجموعة الضابطة) في مستشفى العلوية التعليمي لفترة من 4 تموز إلى 25 تشرين الثاني 2018. تم جمع البيانات من خلال الاستخدام الاستبيان ، أسلوب المقابلة ، أستمارة تقييم بالملاحظة. احصاء وصفي (وسط حسابي وانحراف معياري) والتي استخدمت لتحليل البيانات.

النتائج: تشير نتائج الدراسة أن متوسط الحسابي والانحراف المعياري للعمر لمجموعة الدراسة والمجموعة الضابطة كان (23.4 ∓ 5.57) و (20.2∓ 4.16) سنة على التوالي ، وكانت الزوجة خريجات المدرسة الابتدائية (36.7 ٪) و (33.3 ٪) ، (43.3 ٪) و (30 ٪) كانوا الازواج خريجي المدرسة المتوسطة على التوالي ، وربات البيوت ، (73.3 ٪) و (86.7 ٪) منهم لا تربطهم صلة قرابة مع أزواجهن على التوالي ، والحالة الاقتصادية كانت (201000-400000) دينار عراقي شهريا للمجموعة الدراسة بينما أقل من (200000) دينار عراقي للمجموعة الضابطة. كان لدى كل من مجموعة الدراسة والضابطة معرفة ضعيفة بالولادة وبعد تدخل البرنامج ، تحسنت المعرفة والممارسة وكانت ذات دلالة إحصائية عند مستوى (0.00001) مقارنة مع المجموعة الضابطة.

الاستنتاج: تشير النتائج إلى أن صفوف الولادة قد حسنت معارف وممارسات المرأة الحامل البكرية إلى حد كبير بعد تنفيذ البرنامج التعليمي.

التوصيات: أعداد برنامج تدريبي لصفوف الولادة يشمل جميع العاملين في صالة الولادة ، وعلى وزارة الصحة وضع سياسة لتكون صفوف الولادة من ضمن أستراتيجيتها ، مع زيادة وعي المرأة من خلال وسائل الإعلام وتزويدها بكتيب حول صفوف الولادة.

الكلمات المفتاحية: الفاعلية، صفوف الولادة، معارف وممارسات المخاض، المرأة البكرية، الحصيلة.

Abstract:

Background: Childbirth classes help to prepare pregnant woman during labor and delivery to reduce the complications, increase a mother's confidence, and understand how to cope with the pain during labor and delivery.

Aim of study: To measure the effectiveness of childbirth classes regarding labor's Knowledge and practices on primigravida pregnant women.

Methodology: A quasi-experimental design, of sixty primigravida women who participate in program (30 women for study group and 30 for control group) at Al-Elwiya Teaching hospital for period from on 4th July to 25th November 2018. The data were collected through the use of constructed questionnaire format, interview technique, and observational checklist. Descriptive (mean and stander deviation) statistic was used to data analysis).

Results: The finding of the study revealed that the mean and SD of study group and control group age was (23.4 ∓ 5.57) and (20.2∓ 4.16) year respectively, primary school graduated (36.7%)and (33.3%) of wife , (43.3%) and (30%) of husband was intermediate school graduated respectively , housewives , (73.3%)and (86.7%) of them was no relation with their husbands respectively, and low economic status (201000-400000) ID monthly for study group while less than (200000)ID for control group . Both study and control groups had poor knowledge on childbirth and after the program intervention, the knowledge and practice improved and were statistically significant at (0.00001) level in comparison with control group.

Conclusion: The results indicate that childbirth classes have been greatly improved primigravida women knowledge and practices after being intervention the educational program.

Recommendations: All health personnel who worked in labor room need to train about childbirth classes and Ministry of Health making policies to be with its strategies, with raising the women awareness by mass media and providing booklet regarding childbirth classes**.**

Key word: Effectiveness, Childbirth classes, Labor knowledge and practices, Primigravida, outcome.

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INTRODUCTION

Pregnancy and birth are like nothing else in the world processes for women. Fear of childbirth is common, especially in nulliparas. Labor pain and fear of childbirth have received much attention because labor consider as a painful phenomenon [(1)]. The pregnant woman can learn through childbirth classes techniques to relax, normal delivery, setting of birth whether hospital, center or home, pain relief technique. Breathing and relaxation technique trust which is due knowledge and practice which help to be more satisfied in childbirth [(2, 3)] reported that the childbirth classes provide opportunities for pregnant woman to learn exercise that will be help them during pregnancy and childbirth exercise and must be taught by same one who has been specially trained and competent to do, so the goal is not to great fitness during pregnancy but to help the woman to handle the work by learning relax as much as possible and decreasing adverse maternal and neonatal response [(4)].

AIM OF THE STUDY:

To measure the effectiveness of childbirth classes regarding labor's Knowledge and practices on primigravida pregnant women

METHODOLOGY:

A quasi-experimental design, of sixty primigravida women, non-probability (purposive) sample who participate in program (30 women for study group and 30 for control group).The study was conducted at counseling clinic and at delivery room for applying the program in Al-Elwiya Maternity Teaching Hospital at Baghdad city for period from on 4th July to 25th November 2018, their inclusion criteria should be primigravida woman was delivered in the Al-Elwiya Teaching Hospital , gestational age at 34 -36 weeks of pregnancy and no previous pregnancy complications. Validity of the program is reviewing by (13) panel of experts and the reliability cronbach Alpha correlation coefficients on two occasions for total pre and post-test for the study group are (0.97) and (0.93) respectively which is considered positive and high significant relationship. The data were collected through the use of constructed questionnaire format, interview technique, and observational checklist). It comprised of six parts, which includes: Part one: Demographic Characteristics, Part Two: Reproductive History, Part Three: Woman knowledge includes1. Anatomy and Physiology of the Female Reproductive System: 2. Premonitory Symptoms of Labor 3. Stages of Labor, Part Four: Health Practices during Pregnancy, Part Five: Health Practices during Labor.

Method of data collection that carries on through **five stages** which includes:

1. **Pre-test Stage:** This stage assesses data of pregnant women which describe the primary knowledge about preparation to labor by pregnant women before applying educational program from 4th July to 1st November. Each woman fill a questionnaire form by themselves, it took 30 minutes.
2. **Childbirth Classes Stages:** In this stage, the program constructed according to literature, studies and it evaluated by experts in related field. The program design to provide a primigravida woman with knowledge and practice regarding preparation of labor stages and birth, the program carried out to each sample individually or in groups. The duration of each lecture took two hours.
3. **Follow up Stage:** Application of program practices at home by studying sample this done through telephone call.
4. **Post-test Stage:** This test done after 3 weeks from the date of first lecture at 25th November, each sample fills the same questionnaire from by them, to test the effect of educational programs on study sample knowledge.
5. **Evaluation of Educational Program Stage**: The final steps of the study are evaluation of childbirth classes to find out the impact of childbirth classes on pregnancy outcomes (mother and neonate). This is done through the application of observation checklist technique by

researcher about exercises that mother doing through labor which it learned through childbirth classes; this carried out during labor process at delivery room and checks the outcomes for both mother and newborn. Using SPSS (20 version) for data analyzed the application of descriptive statistical approaches, were tested at P≤0.05.

RESULTS:

Table (1): Socio demographic Characteristics for both Study and Control Groups

Socio demographic Variable	**Study Group (n=30)**				**Control Group (n=30)**			
Age / years	**F.**		**%**		**F.**		**%**	
16-20	10		33.3		21		70	
21-25	10		33.3		7		23.4	
26-30	6		20		1		3.3	
31-35	4		13.4		1		3.3	
$\bar{x}$ ∓ SD	23.4 ∓ 5.57				20.2∓ 4.16			
Educational Level	**Wife**		**Husband**		**Wife**		**Husband**	
	F	**%**	**F**	**%**	**F**	**%**	**F**	**%**
Read and Write	3	10	0	0	5	16.7	4	13.3
Primary	11	36.7	9	30	9	30	9	30
Intermediate	7	23.3	13	43.3	10	33.3	9	30
Secondary	4	13.3	2	6.7	4	13.3	5	16.7
Institute and college and more	5	16.7	6	20	2	6.7	3	10
Occupation								
Employ	5	16.67			0	0		
Un employ	25	83.33			30	100		
Consanguinity								
Yes	8	26.7			4	13.3		
No	22	73.3			26	86.7		
***Monthly Income / ID**								
Less than 200000	2	6.7			17	56.7		
201000-400000	14	46.6			7	23.3		
401000-600000	3	10			3	10		
601000-800000	2	6.7			2	6.7		
1010000 and more	9	30			1	3.3		

***Estimated from COSIT, 2017

The finding of the study revealed that the mean and SD of study group and control group age was (23.4 ∓ 5.57) and (20.2∓ 4.16) year respectively, primary school graduated (36.7%)and (33.3%) of wife , (43.3%) and (30%) of husband was intermediate school graduated respectively , housewives , (73.3%)and (86.7%) of them was no relation with their husbands respectively, and low economic status (201000-400000) ID monthly for study group while less than (200000)ID for control group.

Table (2): Reproductive Characteristics for both Study and Control Groups.

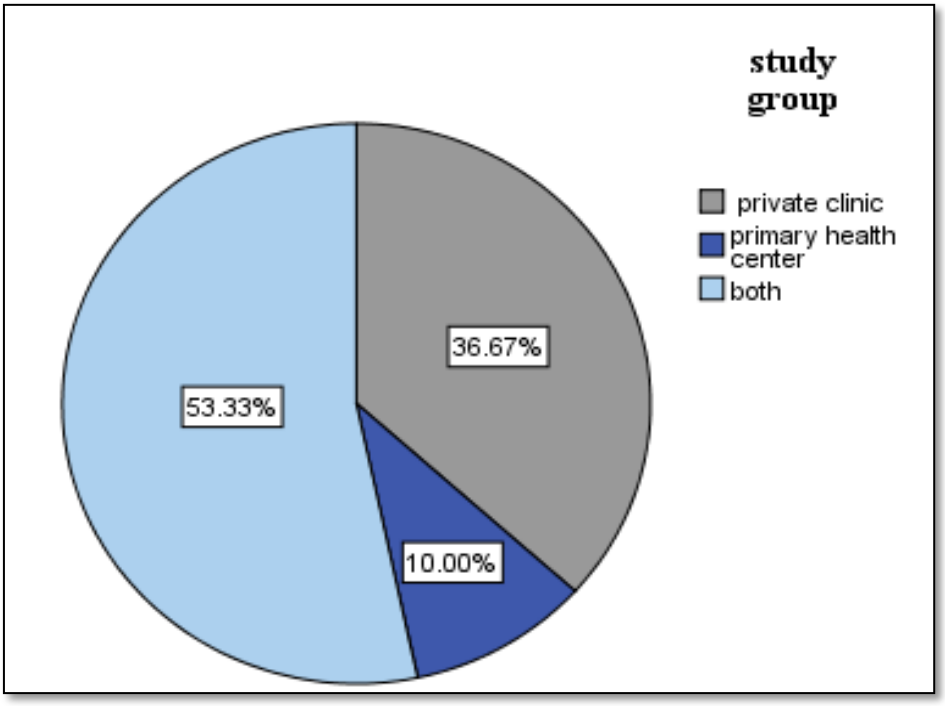
Reproductive Characteristics Variable	**Study Group(n=30)**		**Control Group (n=30)**	
Age at menarche / years	F.	%	F.	%
12	6	20	0	0
13	4	13.3	10	33.3
14	20	66.7	20	66.7
$\bar{x}$ ∓ SD	13.50 ∓ 0.82		13.70∓0.48	
Age at married / years				
14-18	11	36.7	16	53.3
19-23	7	23.3	12	40.1
24-28	7	23.3	1	3.3
29-33	5	16.7	1	3.3
$\bar{x}$ ∓ SD	22 ∓ 5.55		19.13 ∓ 3.98	
Gestational age / weeks				
34	15	50	16	53.3
35	10	33.3	13	43.4
36	5	16.7	1	3.3
$\bar{x}$ ∓ SD	34.7∓0.80		34.5∓0.57	
***Regularity of antenatal visit**				
Regular	20	66.7	4	13.3
Irregular	10	33.3	26	86.7
Preference of delivery from woman point of view				
Normal vaginal delivery	29	96.7	30	100
Cesarean section	1	3.3	0	0
Previous birth information				
Yes	7	23.3	5	16.7
No	23	76.7	25	83.3
Information source				
None	23	76.7	25	83.3
Mother	3	10	2	6.7
Friend	0	0	1	3.3
Media	4	13.3	2	6.7

Recommendations 2018 the four-visit focused ANC (FANC) model

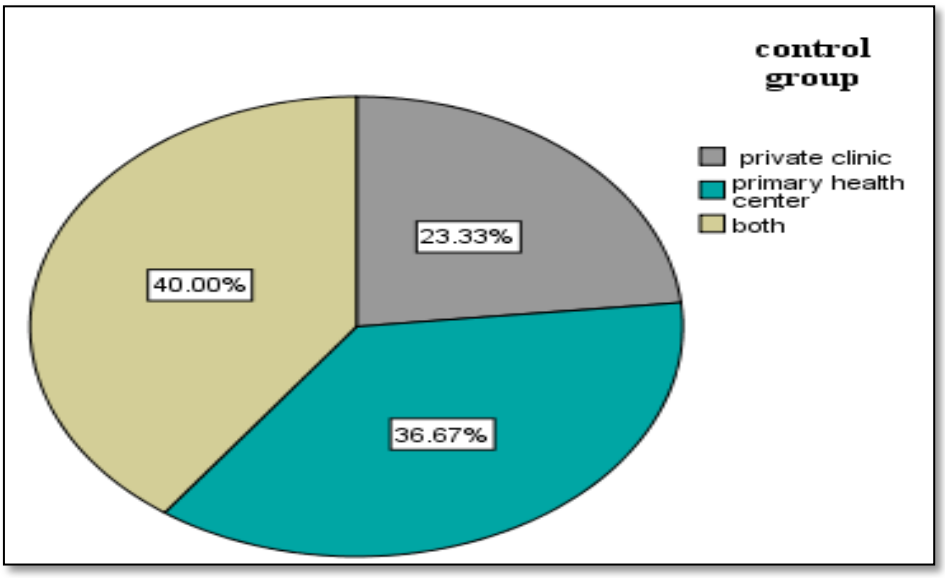
Table (2) shows that mean and SD for age at menarche were (13.50±0.82) and (13.70 ± 0.48) years respectively. The mean and SD for age at married were (22 ∓ 5.55) and (19.13 ∓ 3.98) years respectively. Both study and control groups the mean and SD of gestational age

were (34.7 ± 0.80) and (34.5 ± 0.57) respectively. The highest percentage of regularity of antenatal visit for study group was (66.7%), while the lowest percentage of irregular antenatal visit was (33.3%).The (96.7%) (100%) of both study and control groups prefer normal delivery from their point of view respectively, while the lowest percentage (3.3%) of study group prefer cesarean section delivery. Three third (76.7%) (83.3%) of both study and control groups hadn't previous birth information respectively, while (23.3%) (16.7%) of them had previous information concerning birth, (13.3%) from media for the study group while (6.7%) from mother and media respectively for control group.

Figures: Setting of Antenatal Visit among both Groups



Half (53.33%) of study group visiting private clinic and primary health center, while the lowest percentage (10%) of them visiting primary health center only.



The highest percentage (40%) of control group visiting private clinic and primary health center, while the lowest percentage (23.33%) of them visit private clinic only

Table (3): Effectiveness of Preparation of Labor Classes in both Study and Control Primigravida Women

Group / Item		Pretest		Posttest		P. value ≤ 0.05
		Mean	St. Deviation	Mean	St. Deviation	
Study group	Knowledge	62.10	18.47	115.87	16.17	0.00001
	Practice	26.63	7.36	47.03	4.18	0.00001
Control group	Knowledge	57.10	5.175	58.37	5.58	0.279791
	Practice	27.23	4.49	27.17	4.66	0.889

The findings show that both study and control groups had poor knowledge on childbirth and after the program intervention, the knowledge and practice improved and were statistically significant at (0.00001) level in comparison with control group. This indicates that the program contributed in improving knowledge and practice among primigravida woman.

DISCUSSION:

Thirty study group and thirty control group completed the questionnaire. The main age of study group was 23.4 ∓ 5.57 and for control group was 20.2∓ 4.16 range (16-20 and 21-25) and (16 -20) years for both groups respectively. The educational level for both groups were primary and intermediate school graduates respectively, unemployed, no relation with their husbands [(5)]. Revealed in his study that the more than one third (36%) of marriage in rural area, and more than half (54.55%) of them marriage the first cousins and the results concluded that higher significant was found that fetal loss seen in consanguineous group compared with non-consanguineous group. The findings reveals that monthly income in study group (46.7%) was from (201000- 400000 ID) while in control group (56.7%) were less than 200000 ID, which consider as middle economic status [(6)]. The majority (95%) of girls their ages (15-19) years are in the developing countries that is due to the low socioeconomic status and low education [(7)].

The mean age at menarche for both group (13.47 ∓ 0.82) and (13.67 ∓ 0.48) respectively for average 14 years. Half of study and control groups their gestational age at 34 weeks [(6)] agree with the study results that (n = 40) women their gestational age ranged from 24-36 weeks, also the results shows that majority (96.6% and 100%) respectively of both groups prefer normal vaginal delivery, three third of both study and control groups hadn't

previous birth information. A study shows that majority of women's had prior information on childbirth [8].

The majority of study sample their marriage age was (16 and 17) with mean (22 ∓ 5.55 and 19.13 ∓ 3.98) for both group respectively, quarter (24%) of girls in Iraq are married before the age of 18 and 5% are married before the age of 15 [9]. Both teenaged mothers (younger than 20 years) and older mother (35 years or above) are associated with higher than average rates of pre – term birth, growth restriction, and perinatal mortality [10]. More than half of study group having regular schedule in visiting antenatal centers. All parous women have excellent prenatal care and regularly [11], while most of control group having irregular schedule in visiting antenatal centers. In the Jordan women can access maternal health education pregnancy, if they regular visit for public health center. Thus (99%) of primigravida women receive prenatal care and (94%) of them receiving more than 4 visits during pregnancy [12]. The first prenatal visit known as the first trimester booking visit should be from 8 -14 weeks. The main purpose of this visit is to obtain a comprehensive history, determine the gestational age, and identify any risk factors for the mother or fetus. Thus, a visit at this appropriate period has been associated with significantly reduction of maternal and perinatal morbidity and mortality [13]. Half of study group and (40%) of control group were visit private clinic and primary health center.

The findings indicated that there were different in the results between study and control groups. On the other hand were higher in the study group in compare with control group this may be related to improve their knowledge and practices due to childbirth classes (Table 3). Preparation by childbirth classes and parenthood can help primigravida woman to be prepared for labor, and encourage new parents after birth to contact with them, women's satisfaction about classes determined the number of session as well as low educational level and young primigravida woman found that this classes were helpful [14].

Knowledge is empowerment when it comes to antenatal education to make a couple is aware of what to expect during labor, delivery, and postnatal periods [15]. Prenatal education preparation may contribute to decreasing perinatal complications [4]. Childbirth classes provide information that minimize fears and help to make informed decisions as well as help to relax and cope with childbirth experiences [16].Women who are attending birth classes can help them to keep self-control with non- pharmacological techniques and pain control technique used which makes woman satisfied with childbearing experience and this way led to establish an antenatal program to increase the woman self-control during labor and subsequently improved woman satisfaction towards labor [17, 18] focusing on the need to practice the breathing exercise during pregnancy and to perform it during labor. So this study indicates that Lamaze breathing exercise has positive effects on labor outcomes during first stage of labor. On the other hand, breathing exercise will help the mother tolerate labor pain, improving progress of labor in terms of reduction in duration of labor leading to normal spontaneous vaginal delivery [16] concluded that childbirth preparation or Lamaze method is a great way to prepare mother for labor and birth that provide information to decrease fears and help to make informed decisions as well as help to relax and cope with childbirth experiences that lead to decrease chance of cesarean section and reported more normal vaginal delivery and found Lamaze method improved labor outcomes among primigravida women.

CONCLUSION:

The childbirth classes could reduce the adverse delivery outcomes and may be increase knowledge and skills during pregnancy and childbirth which enabling primigravida to cooperate with nurse / midwife during labor.

RECOMMENDATIONS:

1. All members of the labor and birthing care team can train how to prepare woman to childbirth through courses provided by Ministry of Health.
2. The Ministry of Health can make policies that childbirth classes are within their strategies.
3. Childbirth classes should be a routine activity and a services be delivered by nurse / midwife in primary health centers, outpatient and in labor room.
4. Preparing a booklet or leaflets concerning preparation for birth and free distribution to pregnant woman at antenatal centers.
5. Mass media can contribute in raising the awareness of women regarding exercises during childbirth.
6. Further studies should be conducted on prenatal, labor, postnatal and breast feeding classes.

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