

Effectiveness of an Educational Program regarding the Knowledge of women about maternal care during the postpartum period that attending to the primary health care centers at Al-Amara City / Iraq

مدى فاعلية البرنامج التعليمي فيما يتعلق بمعارف النساء حول رعاية الأم خلال فترة النفاس التي يحضرن في مراكز الرعاية الصحية الأولية في مدينة العمارة/العراق

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الخلاصة:

خلفية البحث: الرعاية ما بعد الولادة احد اهم مكونات الرعاية الصحية والتي تسهم في الوقاية من مضاعفات الامهات وتحسين صحة الأم وحديثي الولادة و بالإضافة إلى تلبية احتياجات الأمهات العقلية والعاطفية تتمثل في توفير التنقيف الصحي الأساسي للأمهات وعائلتهن وإعداد الأمهات لقبول أدوارهن الأم وتشجيعهن للتقدم الفعال نحو الأمومة.

الهدف: تحديد مدى فاعلية البرنامج التعليمي فيما يتعلق بمعارف النساء حول رعاية الأم خلال فترة النفاس والتي يحضرن في مراكز الرعاية الصحية الأولية في مدينة العمارة/العراق.

المنهجية: أجريت دراسة شبه تجريبية لعينة غير احتمالية غرضية تتكون من (172) امرأة متعددة الولادة (86) (مجموعة دراسة) و (86) لمجموعة الضابطة ، تم اختيارهن من ثمانية مراكز للرعاية الصحية الأولية في مدينة العمارة. أجريت الدراسة من (1\ تشرين الأول \ 2018 إلى 22\ كانون الثاني \ 2020) يتكون الاستبيان من ثلاثة أجزاء رئيسية ، بما في ذلك: الجزء الأول/ الخصائص الاجتماعية والديموغرافية و الجزء الثاني/ الخصائص الإنجابية و الجزء الثالث/ معارف النساء تجاه فترة ما بعد الولادة وتم تحليل البيانات باستخدام الإحصاء الوصفي (التكرارات و النسبة المئوية الجداول و الأشكال و متوسط الدرجات والاكثفاء النسبي) والإحصاء الاستدلالي (اختبار t مربع كـاي).

النتائج: من خلال تحليل البيانات كان متوسط عمر النساء بين (16-40) سنة وأن هناك فروق ذو دلالة إحصائية في معارف النساء لرعاية الأمهات في فترة ما بعد الولادة بين الاختبار القبلي والبعدى لمجموعة الدراسة و لا يوجد فروق ذو دلالة إحصائية في معارف النساء لرعاية الأمهات في فترة ما بعد الولادة بين الاختبار القبلي والبعدى للمجموعة الضابطة و كانت هناك علاقة عكسية بين العمر ومعارف الأمهات الكلية في الاختبار البعدى لمجموعة الدراسة.

الاستنتاج: خلصت الدراسة إلى وجود فروق ذات دلالة إحصائية في معارف النساء الكلية برعاية الأم في فترة ما بعد الولادة بين الاختبار القبلي والبعدى لمجموعة الدراسة وليس هناك فروق ذو دلالة إحصائية في معارف النساء الكلية في فترة ما بعد الولادة بين الاختبار القبلي والبعدى للمجموعة الضابطة.

التوصيات: أوصت الدراسة بتنفيذ برنامج تدريبي موجه نحو رعاية الأم ما بعد الولادة حيث يمكن اعتباره وسيلة لتحسين معرفة المرأة عن فترة ما بعد الولادة.

الكلمات المفتاحية: تعليم، تأثير، معرفة، فترة النفاس، برنامج، نساء.

ABSTRACT:

Background: Postpartum care as one of the most important components of health care contributes to the prevention of maternal complications and improvement of maternal/neonatal health. In addition to meeting mothers' mental and emotional needs consist of providing basic health education to mothers and her families, preparing mother to accept their maternal roles and encouraging an effective progress to motherhood.

Aim of the Study: To determine the effectiveness of an Educational Program regarding the Knowledge of women about maternal care during the postpartum period who attending the primary health care centers in the Amara City / Iraq.

Methodology: Quasi-experimental design was accomplish on non-probability (Purposive sample) used to collect the data from (172) multigravida women (86) study group and (86) control group who were selected from the eight primary health care centers. The study was conducted from (1st December, 2018 to 22 January, 2020). The questionnaire was consisted of three main parts, including: part one/Socio-demographic characteristics, part two/ Reproductive Characteristics, and part three /women's knowledge toward the postpartum period. The analysis of data was performed through the application of descriptive statistical (frequency, percentage, tables, figures, mean of score and relative sufficiency) and inferential statistical (t-test and chi-square).

Results: through analysis of data was the age range of the women was between (16-40) years and there was a statistically significant difference in women's knowledge for maternal care in the postpartum period between the pretest and posttest for study group, There is a no statistically significant difference in women's knowledge for maternal care in the postpartum period between the pretest and posttest for the control group, Also there was statistically significant inverse correlation between women's age and their overall knowledge in the posttest.

Conclusions: The study was concluded that there was statistically significant difference in women's overall knowledge for maternal care in the postpartum period between the pretest and posttest time for study groups, and there is no statistically significant difference in women's overall knowledge in the postpartum period between the pretest and posttest times for the control group.

Recommendations: it was recommended that: Implemented training oriented program about postpartum care and can be considered as a means for the improvement of women's knowledge about the postpartum period.

Key words: Education, Effectiveness, Knowledge, Postpartum Period, Program, Women.

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INTRODUCTION:

Postpartum period, defined by the World Health Organization (WHO) as the period from childbirth to the 42nd day following delivery, is critical for both mothers and new-born. An estimated 529,000 maternal deaths occur worldwide each year because of pregnancy-related complications in the ante-natal, intrapartum, and postpartum periods, especially in resource-limited settings. These deaths are often sudden and unpredictable, with 11% to 17% occurring during childbirth itself and 50% to 71% occurring during the postpartum period ⁽¹⁾.

The purpose of postpartum care is the prevention and early diagnosis of complications in this period, mothers' quick return to a normal status, encouraging breastfeeding and providing family planning services to improve the physical health of mothers and infants. In addition, meeting mothers' mental and emotional needs comprises of providing basic health education for mothers or families, preparing women to accept their maternal roles and facilitating a successful transition to parenthood ⁽²⁾.

Postnatal mothers had inadequate knowledge of pregnancy, childbirth, postpartum and newborn care. Therefore, educational intervention at multiple levels is required during the period of antenatal and postnatal visits ⁽³⁾. Postnatal care is another critical intervention for tackling most causes of maternal and child mortality. Postnatal care helps to detect and manage complications that may arise at the time of labor, delivery, or early after delivery. The postnatal period is the time to counsel the mother about maternal nutrition, breastfeeding, and other childcare practices. During ANC, health workers can inform mothers about neonatal and maternal danger signs that may occur during the postnatal period. In addition, emotional and psychosocial support is provided to alleviate stress ⁽⁴⁾. The postpartum period lasts for approximately 6–8-weeks, starting from childbirth and ending with the restoration of the reproductive organs and other body systems to their pre-pregnancy state. In this period, significant physiological, social, and emotional changes occur in the woman ⁽⁵⁾.

Post -partum period has been termed the fourth stage of labor and has three distinct but continuous phases; Phase one is the initial or acute period and involves the first 6-12 hours postpartum. This is a time of rapid change with a potential for immediate crises such as postpartum hemorrhage, uterine inversion, amniotic fluid embolism, and eclampsia ⁽⁶⁾.

Hypothesis:

1. **H1:** Women who are attended an education program about postpartum care have higher level of knowledge than women who are not.
2. **H2:** There are an inverse relationship between age and women's knowledge.

AIM OF THE STUDY

To determine the effectiveness of an Educational Program regarding the Knowledge of women about maternal care during the postpartum period who attending the primary health care centers in the Amara City / Iraq.

METHODOLOGY:

Quasi-experimental design is accomplished on non-probability (Purposive sample) to determine the effectiveness of an Educational Program regarding the knowledge of women about maternal care during the postpartum period who attending the primary health care centers in the city of Amara / Iraq, the collected data from 172 multigravida women, (86) study group and (86) control group who were selected from the eight primary health care centers (AL-Uroba Primary Health Care Center, AL Zahraa Primary Health Care Center, AL Hasen AL-Askerry Primary Health Care Center, AL-Qudis primary health care center, AL-Ameer primary health care center, AL-Jawideen primary health care center, AL-Amam AL-Husan. Primary health care center and Ali AL-Ridha Primary Health Care Center, These centers are chosen randomly from 16 primary health care centers in the first sector. The study was conducted between 1\ December\ 2018 to 22\ January\ 2020. The questionnaire was consisted of three main parts, including: part one socio-demographic characteristics, part two/ Reproductive Characteristics, and part three/ women's knowledge toward the postpartum period this part was consisted of 52 items regarding knowledge of women toward postpartum period, which consisted of three domains first domain women's knowledge toward postpartum period, this domain was consisted of (25) items.

Second domain women's knowledge toward breastfeeding during the postpartum period, this domain was consisted of 17 items. Third domain women's knowledge toward family planning, this domain was consisted of 10 items, the content validity of questionnaires was determined through 12 panels of experts from different health fields. Reliability of the questionnaire was determined through an application of split-half and computation of Cronbach's Alpha Correlation coefficients ($r=0.98$). The analysis of data was used the statistical package for social sciences (SPSS) version 24 which, performed through the application of descriptive statistics (frequency, percentage, tables, figures, means of score and relative sufficiency) and inferential statistical (t-test and chi-square).

RESULTS:

Table (1): Distribution of Study Sample (Study and Control Group) according to Socio-Demographic characteristics

Variables	Study Group (n = 86)		Control Group (n= 86)		D.F	P value	Sig
	F	%	F	%			
Age (Years)							
16-23	19	22.1	27	31.4	3	0.250	NS
24-31	42	48.8	39	45.3			
32-39	15	17.5	11	12.8			
40 and above	10	11.6	9	10.5			
Mean (SD)	28.01±6.9		27.20±6.8				
Wife's level of education							
Unable to read and write	4	4.6	7	8.1	6	0.210	NS
Read and write	6	7.0	6	7.0			
Primary school graduate	22	25.6	28	32.5			
Intermediate school graduate	15	17.4	17	19.8			
Secondary school graduate	17	19.8	9	10.5			
Diploma	11	12.8	6	7.0			
Bachelor's degree and above	11	12.8	13	15.1			
Wife's occupation							
Works	13	15.1	6	7.0	1	0.071	NS
Does not work	73	84.9	80	93.0			
Residency							
Urban	80	93.0	77	89.5	1	0.339	NS
Rural	6	7.0	9	10.5			

Family type							
Nuclear	43	50.0	42	48.8	1	0.893	NS
Extended	43	50.0	44	51.2			

n=Number of Sample, F. =Frequencies, % Percentage, SD=Standard Deviation, χ^2 =Chi Square, DF=degree of freedom, C.S=Comparison Significant, NS=Non Significant at p-value $p < 0.05$.

Table (1) showed that mean was 28.01 ± 6.9 ; 42(48.8%), in the age group 24-31 years followed by those who age 16-23-years 19 (22.1%), those who age 32-38-years 15(17.5%), and those who age 39-46 years 10(11.6%). For the control group the age mean was $27.20 \pm$. concerning the wives' level of education, are primary school graduates 22 (25.6%), followed by those who are secondary school graduates 17(19.8%), those who are intermediate school graduates 15(17.4%), those who are each holding a diploma degree and bachelor's degree and above 11(12.8%) for each of them, those who read and write 6(7.0%), and those who are unable to read and write 4 (4.6%). For the control group, are primary school graduates 28(32.5%), followed by those who are intermediate school graduates 17(19.8%), those who hold a bachelor's degree and above 13(15.1%), those who are secondary school graduates 9 (10.5%), those who are unable to read and write 7(8.1%), and those who read and write and those who hold a diploma degree 6(7.0%) for each of them.

Concerning residency, the majority in the study group lives in urban areas 80(93.0%) compared to those who lives in rural areas 6(7.0%). For the control group, the majority live in urban areas 77 (89.5%) compared to those who lives in rural areas 9(10.5%).Regarding family type, women in the study group reported that they live equally of nuclear and extended families 43(50.0%) for each type. For the control group, more than a half live in extended families 44(51.2%) compared to those who lives in nuclear families 42(48.8%). There were no a statistical significant difference between study and control group and socio-demographic characteristics (age, level of education, occupation, residency and family type. 6.8;were age 24-31 years 39(45.3%), followed by those who age 16-23 years 27(31.4%), those who age 32-38 years 11(12.8%), and those who age 39-46 years 9(10.5%).

Table (2): Distribution of Study Sample (Study and Control Group) according to Reproductive Characteristics

Variables	Study Group (n = 86)		Control (n = 86)		D.F	P value	Sign
	F	%	F	%			
Gravidity							
2	18	20.9	21	24.4	7	0.290	NS
3	19	22.1	23	26.8			
4	13	15.1	9	10.5			
5-6	19	22.1	21	24.4			
7-8	11	12.8	7	8.1			
≥ 9	6	7.0	5	5.8			
Parity							
1	13	15.1	18	20.9	5	0.233	NS
2	18	20.9	26	30.2			
3	22	25.6	9	10.5			
4	9	10.5	17	19.8			
5-6	18	20.9	10	11.6			
≥ 7	6	7.0	6	7.0			
Abortion							
None	64	74.4	62	72.1	3	0.665	NS
1	12	14.0	13	15.1			
2	8	9.3	9	10.5			
3-4	2	2.3	2	2.3			
Stillbirth							
None	70	81.4	72	83.7	3	0.071	NS
1	6	7.0	10	11.6			
2	6	7.0	3	3.5			

≥ 3	4	4.6	1	1.2			
Number of Live Children							
None	3	3.5	2	2.3			
1	14	16.3	18	20.9			
2	16	18.6	28	32.6			
3	24	27.9	11	12.8	6	0.207	NS
4	13	15.1	13	15.1			
5-6	12	14.0	10	11.6			
≥ 7	4	4.6	4	4.6			

n=Number of Sample, F. =Frequencies, % Percentage, SD=Standard Deviation, χ^2 =Chi Square, DF=degree of freedom, C.S=Comparison Significant, NS=Non Significant at p-value $p < 0.05$.

Table (2) showed that the number of gravidity in the study group 19 (22.1%) have three and five-six pregnancy, 19 (22.1%). while the control group showed that they have three pregnancies 23 (26.8%). Regarding parity, the parity in the study group have three deliveries 22 (25.6%), while the control group, concerning the parity have two deliveries 26 (30.2%). With respect to abortion, the majority in the study group reported that they do not have abortion 64 (74.4%) while the control group, they do not have abortion 62 (72.1). Concerning stillbirth, the majority in the study group they do not have stillbirth 70 (81.4%), while the control group, they do not have stillbirth 72 (83.7). Regarding the number of live children, in the study group they have three live children 24 (27.9), while the control group they have two live children 28 (32.6).

Figure (1): Complications of pureperuim among Study Group

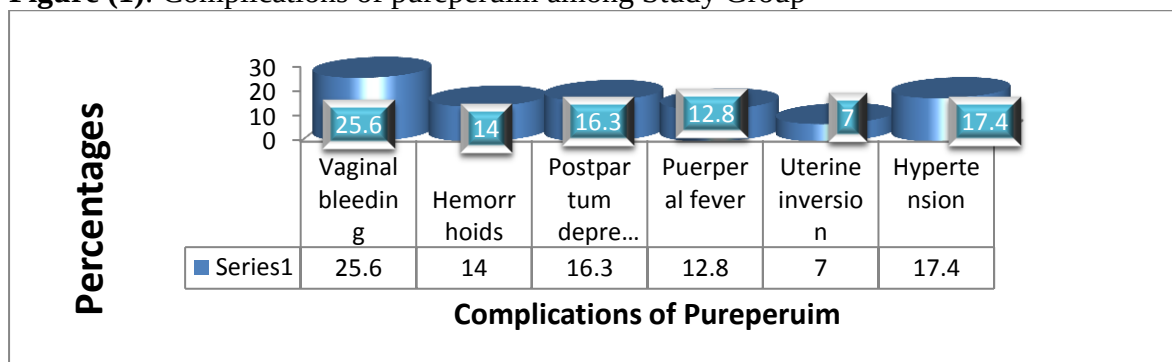


Figure (1) showed that around a quarter of women in the study group reported that they experienced vaginal bleeding 22 (25.6%). followed by hypertension 15 (17.4%), postpartum depression 14 (16.3%), hemorrhoids 12 (14.0%), puerperal fever 11 (12.8%), and uterine inversion 6 (7.0%).

Figure (2): Bar chart Complications of Pureperuim among Control Group

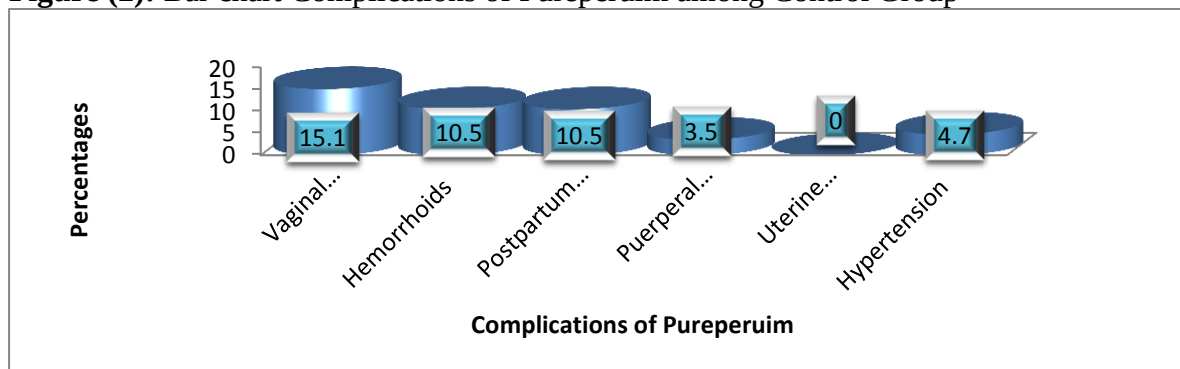


Figure (2) showed that less than a fifth reported that they experienced vaginal bleeding 13 (15.1%) followed by each of hemorrhoids and postpartum depression 9 (10.5%) for each of them, hypertension 4 (4.7%) puerperal fever 3 (3.5%) and uterine inversion (0.0%).

Table (3): Differences in women's knowledge about pureperuim between pretest and posttest for the study group

Li st.	Item	Resp.	Pretest - Study G. (n= 86)					Posttest - Study G. (n= 86)					t	P- valu e	CS
			F	%	MS	R.S %	Ass.	F	%	MS	R.S %	Ass.			
1.	Concept of Postpartum period	Incor.	78	90.7	1.09	54.5	L	1	98.8	1.98	98.5	H	- 25.417	.000	S
		Corr.	8	9.3				85	1.2						
2.	Duration of Postpartum period	Incor.	80	93.0	1.06	53.0	L	2	95.3	1.97	99.0	H	- 30.972	.000	S
		Corr.	6	7.0				84	4.7						
3.	The stage of Postpartum period	Incor.	80	93.0	1.06	53.0	L	2	2.3	1.97	98.5	H	- 25.489	.000	S
		Corr.	6	7.0				84	97.7						
4.	Complicati ons during first stage of post-partum period (pureperui m)	Incor.	84	97.7	1.02	51.0	L	4	4.7	1.95	97.5	H	- 33.665	.000	S
		Corr.	2	2.3				82	95.3						
5.	Complicati ons during second stage of postpartum period	Incor.	78	90.7	1.09	54.5	L	1	98.8	1.98	99.0	H	- 24.137	.000	S
		Corr.	8	9.3				85	1.2						
6.	Meaning of Lochia	Incor.	85	98.8	1.01	50.5	L	0	0.0	2.00	100.0	H	- 41.743	.000	S
		Corr.	1	1.2				86	100.0						
7.	Sexual intercourse	Incor.	84	95.3	1.04	52.0	L	0	0.0	2.00	100.0	H	- 41.743	.000	S
		Corr.	2	4.7				86	100.0						
8.	Divided of Lochia	Incor.	85	95.3	1.01	50.5	L	3	3.5	1.96	98.0	H	- 41.743	.000	S
		Corr.	1	4.7				83	95.5						
9.	Critical period of a mother's life is	Incor.	84	95.3	1.04	52.0	L	1	98.8	1.98	99.0	H	- 37.108	.000	S
		Corr.	2	4.7				85	1.2						
10.	Duration of uterus return to the normal status after delivery during	Incor.	84	95.3	1.04	52.0	L	1	98.8	1.98	99.0	H	- 37.108	.000	S
		Corr.	2	4.7				85	1.2						
11.	Weight of uterus through 42 days	Incor.	80	93.0	1.06	53.0	L	2	95.3	1.97	98.5	H	- 28.788	.000	S
		Corr.	6	7.0				84	4.7						
12.	Main complicatio ns during postpartum period	Incor.	84	95.3	1.02	51.0	L	3	3.5	1.96	98.0	H	- 37.108	.000	S
		Corr.	2	4.7				83	95.5						
13.	Warning signs for the mother during (pureperui m) include	Incor.	80	93.0	1.06	53.0	L	0	0.0	2.00	100.0	H	- 33.665	.000	S
		Corr.	6	7.0				86	100.0						
14.	After pain which occurs after birth is due to	Incor.	84	95.3	1.02	51.0	L	1	98.8	1.98	99.0	H	- 48.494	.000	S
		Corr.	2	4.7				85	1.2						

15.	Postpartum blues may occur	Incor.	84	95.3	1.04	52.0	L	0	0.0	2.00	100.0	H	-41.743	.000	S
		Corr.	2	4.7				86	100.0						
16.	Signs and symptoms of postpartum blues after delivery	Incor.	84	95.3	1.04	52.0	L	4	4.7	1.95	97.5	H	-25.489	.000	S
		Corr.	2	4.7				82	95.3						
17.	Postpartum blues may disappear after	Incor.	81	94.2	1.05	52.5	L	0	0.0	2.00	100.0	H	-37.108	.000	S
		Corr.	5	5.8				86	100.0						
18.	Common causes of Puerperal sepsis	Incor.	82	95.3	1.04	52.0	L	4	4.7	1.95	97.5	H	-25.489	.000	S
		Corr.	4	4.7				82	95.3						
19.	Signs and symptoms of Puerperal sepsis	Incor.	83	95.5	1.03	51.5	L	4	4.7	1.95	97.5	H	-30.972	.000	S
		Corr.	3	3.5				82	95.3						
20.	Signs and symptoms of Postpartum hypertension	Incor.	83	95.5	1.03	51.5	L	4	4.7	1.95	97.5	H	-27.050	.000	S
		Corr.	3	3.5				82	95.3						
21.	Signs and symptoms of deep venous thrombosis (DVT)	Incor.	84	95.3	1.02	51.0	L	2	95.3	1.97	98.5	H	-41.743	.000	S
		Corr.	2	4.7				84	4.7						
22.	Prevention of deep venous thrombosis	Incor.	85	95.3	1.01	50.5	L	3	3.5	1.95	97.5	H	-41.743	.000	S
		Corr.	1	4.7				83	95.5						
23.	Postpartum hemorrhage means	Incor.	85	95.3	1.01	50.5	L	4	4.7	1.95	97.5	H	-37.108	.000	S
		Corr.	1	4.7				82	95.3						
24.	Causes of Postpartum hemorrhage	Incor.	83	95.5	1.03	51.5	L	0	0.0	2.00	100.0	H	-48.494	.000	S
		Corr.	3	3.5				86	100.0						
25.	Preventive factors of postpartum hemorrhage Prevention of deep venous thrombosis	Incor.	84	95.3	1.02	51.0	L	0	0.0	2.00	100.0	H	-59.749	.000	S
		Incor.	85	95.3				3	3.5						

Ass.= Assessment, C.S. = Comparative Significance, Corr. = Correct, f = Frequency, H = High (R.S = 87.6% – 100%), M = Moderate (R.S = 75 % - 87.5%), L = Low (R.S = less than 75%), MS = Mean Score, n= Number of sample, R.S = Relative Sufficiency, Resp. = Response, % = Percentage, t = t-test, S = Significant at P- value ≤ 0.05 .

Table (3) reveals that all items of women's knowledge about pureperuim are of low mean scores with low Relative Sufficiency (R.S) and their assessment is low in the pretest time. In the posttest time, all items are of high mean scores with high R.S. and their assessment is high with statistically significant differences in all items.

Table (4): Differences in women's knowledge about breastfeeding during pureperuim between pretest and posttest for the study group

Li st	Item	Resp	Pretest - Study G. (n= 86)					Posttest - Study G. (n= 86)					t	P-value	CS
			f	%	MS	R.S %	Ass.	F	%	MS	R.S %	Ass.			

1.	What do you give to the newborn after delivery	Incor	84	95.3	1.02	51.0	L	0	0.0	2.00	100.0	H	-59.749	.000	S
		Corr.	2	4.7				86	100.0						
2.	Benefits of breastfeeding for the mother	Incor	84	95.3	1.02	51.0	L	7	8.1	1.91	95.5	H	-24.137	.000	S
		Corr.	2	4.7				79	91.9						
3.	When colostrum secretion started	Incor	84	95.3	1.02	51.0	L	0	0.0	2.00	100.0	H	-59.749	.000	S
		Corr.	2	4.7				86	100.0						
4.	Benefits Breastfeeding for newborn	Incor	86	100.0	1.00	50.0	L	0	0.0	2.00	100.0	H	-48.494	.000	S
		Corr.	0	0.0				86	100.0						
5.	The duration of breastfeeding:	Incor	83	96.5	1.03	51.5	L	5	5.8	1.94	97.0	H	-30.972	.000	S
		Corr.	3	3.5				81	94.2						
6.	Women non breast feeding the ovulation and menstrual cycle return through	Incor	85	98.8	1.01	50.5	L	2	95.3	1.97	98.5	H	-48.494	.000	S
		Corr.	1	1.2				84	4.7						
7.	What is exclusive breastfeeding	Incor	84	95.3	1.02	51.0	L	2	95.3	1.97	98.5	H	-41.743	.000	S
		Corr.	2	4.7				84	4.7						
8.	Exclusive breastfeeding may prevent pregnancy if mother feeding a baby for	Incor	84	95.3	1.02	51.0	L	3	3.5	1.96	98.0	H	-37.108	.000	S
		Corr.	2	4.7				83	95.5						
9.	Signs and symptom that indicate the baby is hungry	Incor	84	95.3	1.02	52.0	L	0	0.0	2.00	100.0	H	-59.749	.000	S
		Corr.	2	4.7				86	100.0						
10.	Good signs of attachment of baby during breastfeeding are	Incor	84	95.3	1.02	51.0	L	0	0.0	2.00	100.0	H	-59.749	.000	S
		Corr.	2	4.7				86	100.0						
11.	The period of breastfeeding that compensates for water	Incor	85	98.8	1.05	52.5	L	0	0.0	2.00	100.0	H	-37.108	.000	S
		Corr.	1	1.2				86	100.0						
12.	Position of breastfeeding	Incor	86	100.0	1.00	50.0	L	2	95.3	1.97	98.5	H	-59.749	.000	S
		Corr.	0	0.0				84	4.7						
13.	What is breast engorgement	Incor	86	100.0	1.00	50.0	L	2	95.3	1.97	98.5	H	-59.749	.000	S
		Corr.	0	0.0				84	4.7						
14.	Causes of breast engorgement	Incor	84	95.3	1.02	51.0	L	0	0.0	2.00	100.0	H	-59.749	.000	S
		Corr.	2	4.7				86	100.0						
15.	Treatment	Incor	86	100	1.00	50.0	L	1	1.2	1.98	99.0	H	-	.000	S

	of breast engorgement			.0									85.000		
		Corr.	0	0.0				85	98.8						
16.	Causes of nipple cracking	Incor	85	98.8	1.01	50.5	L	0	0.0	2.00	100.0	H	-37.836	.000	S
		Corr.	1	1.2				86	100.0						
17.	Treatment of nipple cracking	Incor	85	98.8	1.01	50.5	L	0	0.0	2.00	100.0	H	-85.000	.000	S
		Corr.	1	1.2				86	100.0						

Ass.= Assessment, C.S. = Comparative Significance, Corr. = Correct, f = Frequency, H = High (R.S = 87.6% – 100%), L = Low (R.S = less than 75%), M = Moderate (R.S = 75 % - 87.5%), MS = Mean Score, n= Number of sample, R.S = Relative Sufficiency, Resp. = Response, % = Percentage, t = t-test, S = Significant at P- value ≤ 0.05 .

Table (4) demonstrates that all items of women's knowledge about breastfeeding during pureperuim are of low mean scores with low R.S. and their assessment is low in the pretest time. In the post test time, all items are of high mean scores with high R.S. and their assessment is high with statistically significant differences in all items.

Table (5): Differences in women's knowledge about family planning between pretest and posttest for the study group

Li st	Item	Resp .	Pretest - Study G. (n= 86)					Posttest - Study G. (n= 86)					t	P- value	CS
			F	%	MS	R.S %	Ass.	F	%	MS	R.S %	Ass.			
1.	How long is the appropriate pregnancy interval after normal delivery	Incor	83	96.5	1.03	51.5	L	5	5.8	1.94	97.0	H	-25.489	.000	S
		Corr.	3	3.5				81	94.2						
2.	How long is the appropriate pregnancy interval after cesarean section	Incor	83	96.5	1.03	51.5	L	5	5.8	2.00	100.0	H	-48.494	.000	S
		Corr.	3	3.5				81	94.2						
3.	Duration of using family planning methods for non-nursing mother after birth	Incor	85	98.8	1.01	50.5	L	4	4.7	1.95	97.5	H	-37.108	.000	S
		Corr.	1	1.2				82	95.3						
4.	When an intrauterine device should be used	Incor	83	96.5	1.03	50.0	L	0	0.0	2.00	100.0	H	-48.494	.000	S
		Corr.	3	3.5				86	100.0						
5.	What are contraception methods	Incor	84	95.3	1.02	51.0	L	0	0.0	2.00	100.0	H	-59.749	.000	S
		Corr.	2	4.7				86	100.0						
6.	Benefits using of the contraceptive pills	Incor	84	95.3	1.02	51.0	L	0	0.0	2.00	100.5	H	-59.749	.000	S
		Corr.	2	4.7				86	100.0						
7.	Benefits using of contraceptive s pills in other aspects other than contraception	Incor	86	100.0	1.00	50.0	L	2	95.3	1.97	98.5	H	-59.749	.000	S
		Corr.	0	0.0				84	4.7						
8.	When a woman	Incor	86	100.0	1.00	50.0	L	3	3.5	1.96	98.0	H	-48.494	.000	S

	cannot take birth control pills	Corr.	0	0.0				83	95.5						
9.	The easiest contraceptive method is	Incor	84	95.3	1.02	50.5	L	0	0.0	2.00	100.0	H	-59.749	.000	S
		Corr.	2	4.7				86	100.0						
10.	What is the most effective contraceptive methods	Incor	86	100.0	1.00	50.0	L	3	3.5	1.96	98.0	H	-48.494	.000	S
		Corr.	0	0.0				83	95.5						

Ass.= Assessment, C.S. = Comparative Significance, Corr. = Correct, f = Frequency, H = High (R.S = 87.6% – 100%), L = Low (R.S = less than 75%), M = Moderate (R.S = 75 % - 87.5%), MS = Mean Score, n= Number of sample, R.S = Relative Sufficiency, Resp. = Response, % = Percentage, t = t-test, S = Significant at P- value ≤ 0.05 .

Table (5) reveals that all items of women's knowledge family planning are of low mean scores with low R.S. and their assessment is low in the pretest time. At the post test time, all items are of high mean scores with high R.S. and their assessment is high with statistically significant differences in all items.

Table (6): Difference in women's overall knowledge about pureperuim between the pretest and posttest for study and control groups

Paired Samples Test								
Overall Knowledge	Paired Differences					T	DF	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Study Pretest – Study posttest	49.418	6.65	0.717	47.991	50.845	68.861	85	0.000
Control Pretest – Control Posttest	1.139	7.428	0.801	0-.453	2.732	1.423	85	0.159

SD=Standard Deviation, Std. Error=Standard Error, DF=degree of freedom, Sig=Significant, =Mean, T=T-test.

Table (6) showed that there is a statistically significant difference in women's overall knowledge about pureperuim between the pretest and posttest for study group (p-value = .000). For the control group, there is no statistically significant difference in women's overall knowledge about pureperuim between the pretest and posttest times by using t-test.

DISCUSSION

- Discussion of the Socio- demographic Characteristics of the Women

• Age

Throughout the data analysis the finding of the study sample indicated that nearly half of women were 42(48.8%) within the age group (24-31) years, and less than a half age 24-31-years (n = 39(45.3%)) for the control group. This result reveals a fact that this age group of the women married in adult age and increase awareness to the reproductive health and dangers of adolescence married. This finding was supported by Al-Mutairi and Al-Omran (2017) conducted on thirty women in seven PHCs Ministry of health (MOH), Riyadh city, to assess the knowledge and practice of breast feeding, the majority of women were within the average age of their study sample were 25–35 years of age (49%) ⁽⁷⁾.

• Level of Education

Concerning women's level of education, around a quarter in the study group are primary school graduates 22(25.6%), and less than a third 28 (32.5%) for the control group are

primary school graduates, This result reveals that the education in past years at AL-Amara City was not supported and not encouraged especially for women to continue their education. So most women did not have the opportunity to continue their education because of social and cultural nature (sex discrimination) and being married an opportunity age, particularly those who are living in the rural area who are mostly involved in either farming or early marriage. This finding was supported by AL-Abedi and Al-Asadi (2016) on 150 lactating mother assessment of mother's knowledge toward breastfeeding at AL-Najaf City, they showed that the majority of mothers (28.7%) graduated from primary school ⁽⁸⁾. Also this result agree with Gupta et al., (2018) study on 414 both preterm and term babies who were born at Chhattisgarh in India, they reported that 104 (25.1) had Primary school ⁽⁹⁾.

- **Women's occupation**

The major group of the study sample in study group in regarding to their occupational status were housewives 73 (84.9%) compared to those who work 13(15.1%). For the control group, the majority were housewives 80 (93.0%) compared to those who work 6 (7.0%). This finding was supported by Khodabandeh et al., (2017) conducted on 220 mothers admitted to postpartum units of two teaching hospitals affiliated with Tabriz University of Medical Sciences (Al-Zahra and Taleghani, The majority of mothers in the intervention group (90.2%) and control group (92.6%) were housewives ⁽¹⁰⁾. Also this result agree with study done by Abd El-Razek., (2013) on 200 mother in a Middle Eastern city of El-Basher Hospital, Amman, Jordon, which showed that The majority of mothers were housewives (83.5%).Concerning present study in both groups, the majority were did not have any academic certification or less to give them a chance of working at ALaara city in addition to early marriage ⁽¹¹⁾.

- **Residency**

In regard to the subjects residency the highest percentages (93.0 %.), (89.5%) respectively for both study and control groups were living in urban area, while 6 (7.0%), (10.5%) respectively for both study and control group, were live in rural areas. This finding agreed with Berhea et al., (2018) study on 456 postpartum mothers in Mekelle City, North Ethiopia showed that the majority of women were (89.6%) were living in urban area. This result indicated that the target sample of the research was taken from the city centres of AL-Amara City ⁽¹²⁾.

- **Type of Family**

Regarding family type, women in the study group reported that they live equally of nuclear and extended families 43 (50.0%) for each type. For the control group, more than a half live in extended families 44 (51.2%) compared to those who live in nuclear families 42 (48.8%).this finding agree with Missiriya, (2016) study 60 postnatal mothers to assess their knowledge and practice in Thandalam, India were most study sample living in Nuclear family (52%). These results indicated to that most families in Maysan begin increased and this result made the family to be living in another place ⁽⁶⁾.

- **Distribution of the Study Sample by their Reproductive Characteristics**

- **Gravidity and Parity**

shows that more than a fifth had 5-6 pregnancies 19 (22.1%) for study group while more than a quarter have the same pregnancies 23(26.8%) for the control group, and Regarding parity around a quarter have three deliveries (n = 22; 25.6%). for study group and for the control group less than a third have two deliveries (n = 26; 30.2%), These finding indicated that most of the study sample were "grandmulti gravida & para". The study concluded that the study sample may had no awareness for using family planning ,or the desire and attitude of the couples to have big family related to the social norms and culture perspectives of the area in Governorate of Maysan. Shahid and Moshtaq (2009) who reported in their study that

maternal complications increased with the increased of parity, so the grand multipara still as high risk pregnancy .In addition the risk of having suboptimal pregnancy outcomes increase in women who are experiencing their sixth or higher birth ⁽¹³⁾.

- **Number of Abortion and Stillbirth**

The same table showed that three quarter of women in the study group reported that they do not have abortion 64 (74.4%), and 62 (72.1%), for the control group , Concerning stillbirth, the majority in the both groups study and control group reported that they do not have any stillbirth 70 (81.4%),72 (83.7%). This result agrees with Masoud and Saber (2016) who conducted on (100) primiparous and multiparous, at the Beni Suef general hospital in Egypt they showed that most of women had not abortion (70.0%), and majority of the women did not had still birth (94.0%) ⁽¹⁴⁾. This results indicated that most study sample in both group had good health status and absent from obstetrical problem and healthy diet and most of them were didn't work this effect on their live style which include psychological status and comfort.

- **Number of Live Children**

Regarding the number of live children, more than a quarter reported that they have three live children 24 (27.9%), for study group, and for the control group, less than a third reported that they have three live children 28 (32.6%). This result agrees with Masoud and Saber (2016) who was conducted in (100) primiparous and multiparous, at the Beni Suef general hospital in Egyptian. They showed that shows that; nearly more than a quarter of the sample of pregnant women had three live children (26%) ⁽¹⁴⁾.

- **Complications during Pureperuim**

Regarding the complications during pureperuim the result indicated that the study group reported that they had vaginal bleeding were 22 (25.6%), followed by hypertension 15 (17.4%), postpartum depression 14 (16.3%), hemorrhoids 12 (14.0%), puerperal fever 11 (12.8%), and uterine inversion 6 (7.0%). And regarding to the control group reported that had vaginal bleeding 13 (15.1%) followed hemorrhoids and postpartum depression 9 (10.5%), 9 (10.5%) respectively, hypertension 4 (4.7%), and puerperal fever 3(3.5%) this result was agreed with Sharma e t al.,(2018), who reported that 150 randomly selected pregnant showed that women's complications during pureperuim were puerperal sepsis in 12%. This result indicated that quarter of women suffered from postpartum hemorrhage and the other complications were less incidence which distributed between Hemorrhoids, Uterine inversion, Postpartum depression, Puerperal fever and Hypertension, this meaning that some women after birth not comment by stay in hospital at least two hour in fourth stage of labor which lead to occur postpartum hemorrhage ⁽⁵⁾.

- **Discussion of the Distribution of the women's knowledge about pureperuim between pretest and posttest for the study group**

Analysis of data concerning women's knowledge about pureperuim reveals that all items of women's knowledge about pureperuim is low in the pretest time and In the posttest time, all items are of high mean scores with high R.S. and their assessment is high with statistically significant differences in all items by using t-test. This result agrees with study done by Indu (2016) on 35 mothers in hospital in India showed that there was a significant difference on knowledge regarding postnatal diet before and after educational education ⁽¹⁵⁾.

- **Distribution of the Women's Knowledge about breastfeeding during pureperuim between Pretest and Posttest for the Study Group**

Analysis of data concerning women's knowledge about pureperuim reveals that all items of women's knowledge about breastfeeding during pureperuim are of low mean scores with low R.S. and their assessment is low in the pretest time. This result was disagreed with the study was done by AL-Abedi and Al-Asadi (2016) on 150 lactating mothers in six primary health care centers at AL-Najaf city, showed that the majority of mother's responses to the knowledge items about breastfeeding are good. And in the posttest time, all items are of high mean scores with high R.S. and their assessment is high with statistically significant differences in all items by using t-test⁽⁸⁾.

- **Discussion of the Distribution of the Women's Knowledge about Family Planning between Pretest and Posttest for the Study Group**

Analysis of data concerning women's knowledge about family planning reveals that all items of women's knowledge about family planning women's knowledge family planning are low in the pretest time and their assessment is high with statistically significant differences in all items in posttest. This result agree with study done by Abdulrazaq et al (2014) on 963 married women in in Nigeria, where the knowledge score in the intervention group toward family planning increased significantly while there was no change in the control group⁽¹⁶⁾.

- **Discussion of women's overall knowledge about pureperuim between the pretest and posttest for study and control group**

Analysis of data about women's overall knowledge about pureperuim between the pretest and posttest for study and control groups shows that there were a statistically significant difference in women's overall knowledge about pureperuim between the pretest and posttest for study group ($p\text{-value} = .000$) while there is no statistically significant difference in women's overall knowledge about pureperuim between the pretest and posttest times. For the control group, this result was agreed with study was done by Shrestha et al (2016) on intervention (74) and (69) control group, they showed that the intervention group had significantly increased maternal newborn care knowledge and confidence⁽¹⁶⁾. Also this result agree with study was done by Mokhtari, et al (2018) On 62 mothers at the postpartum; showed that after the intervention, knowledge about mother's health was significantly higher in the intervention group who received postpartum home care compared with the control group who received the routine postpartum care ($p = 0.001$). This result indicated that most women had a desire and ability to learn and acquire knowledge and practices of the postpartum period, especially postpartum women in AL-Amara City⁽¹⁷⁾.

CONCLUSIONS

The study was concluded that there was statistically significant difference in women's overall knowledge for maternal care in postpartum period between the pretest and posttest times, and there is no statistically significant difference in women's overall knowledge in postpartum period between the pretest and posttest times for the control group.

RECOMMENDATIONS: The study was recommended:

1. The finding of the study indicated that all health team members should be aware of the need of observing, supervising, teaching and improving the postpartum care.
2. Training oriented program about postpartum period and can be considered as a means for the improvement of women's knowledge and practice about postpartum period.
3. Health education can be imparted through mass media that is through radio, television, documentary films, booklet, posters and adapting educational programs through mass media mainly television, which aim at raising awareness toward postpartum period and promote the healthy practices.

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