Results

The results obtained from the study were presented in the following sequences :

Part (1): Assessment of socio-demographic characteristics of both nurses and patients included in the study , table (1-3) .

Part (II): Assessment of nurses' knowledge about caring of women undergoing hysterectomy before and after program in the university and teaching hospital , table (4-10), figure (1).

Part (III): Assessment of nurses' performance toward women undergoing hysterectomy before and after program application in the university and teaching hospital , table (11- 20) , figure (2, 3).

Part IV: Correlations between nurses' (knowledge & performance) & their demographic data , table (21, 22) .

Part (1): Assessment of socio-demographic characteristics of both nurses and patients included in the study

Table(1): Distribution of nurses according to their demographic data in the two hospitals

Demographic data	University hospital No.=22		Teaching hospital No.=18		X^2
	No.	%	No.	%	
1- Nurses age:					
a. <30 years	12	54.6	8	44.4	0.64
b. 30-35 years	7	31.8	4	22.2	
c. 35-40 years	3	13.6	5	27.8	
d. >40years	-	-	1	5.6	
2-Position:					
a. nurse	21	95.5	17	94.4	0.08
b. specialized nurse	-	-	-	-	
c. Head nurse	1	4.5	1	5.6	
3-Qualification:					
a. Diploma	19	86.4	17	94.4	0.52
b.Technical institute/ or baclor	3	13.6	1	5.6	
4-Years of experience:					
a. <5 years	6	27.3	2	11.1	0.07
b. 5-10 years	6	27.3	7	38.9	
c. 10-20 years	8	36.4	8	44.4	
d >20years	2	9.0	1	5.6	
5-Attending training programs (about O.R care):					2.53
a. yes	-	-	2	11.1	
b. no	22	100	16	88.9	
6-preseent booklet about O.R care :					identical
. No	22	100	18	100	

Table (1) shows the distribution of nurses according to their demographic data in the two hospitals. Regarding their age, approximately half of nurses in the two hospitals ‹30 years (54.6%, 44.4%), considering their qualification, most nurses had diploma level in the two hospitals (86.4%, 94.4%), concerning position, also most of them were nurses in the two hospitals (95.5 %, 94.4%), as regard to experience years, about (36.4 %) of them were had 10-20 years experience in university hospital while in teaching Hospital was (44.4%) of them had 10-20 years experience. Relating attending training programs about nursing care in operating room (O.R.) , nothing of them attending training programs about nursing care in O.R in university hospital while 11.1% attending in teaching hospital . lastly , no booklets present in the two hospitals about nursing care in O.R.

Table (2): General characteristics of gynecological patients included in the study in the two hospitals

Items	University hospital No.= 132		Teaching hospital No.=108		X^2
	No.	%	No.	%	
1- Age :					
• 30-40 years	55	41.7	43	39.8	0.06
• 40 + years	77	58.3	65	60	
2- Education :					
• Illiterate	55	42	37	34	
• Primary	24	18	19	18	2.64
• Secondary	24	18	32	30	
• University	29	22	19	18	
3- Occupation :					
• House wife	85	64	63	58	0.76
• Working	48	36	45	42	
4- Hospital stay :					
• 3 days	98	74	82	76	
• 4 days	3	2	7	6	0.37
• 5 days	16	12	9	8	
• 6 days	16	12	11	10	

Table (2) shows General characteristics of gynecological patients included in the study in the two hospitals, Regarding their age, approximately (60 %) were 40+ years in the two hospitals .Concerning their education, the higher percentage (42 % & 34 %) were illiterate in the two hospitals . Related to occupation the higher percentage in the

two hospitals were house wife (64%, 58%).Lastly, concerning hospital stay period ,the higher percentage in the two hospitals (74 %,76%) were stayed 3 days only . Lastly , there was insignificant differences between two hospitals regarding demographic data .

Table (3): Distribution of the gynecological patient included in the study according to their gynecological history in the two hospitals

Items	University hospital No.=132		Teaching hospital No.=108		X^2
	No.	%	No.	%	
1- Main complains :					
* Prolapse	13	10	19	18	2.7
* bleeding	132	100	10 8	100	Identical
* pain , bleeding , pain & anemia	13	10	9	8	0.06
2- Menstrual characteristics:					
*dysmenorrhia	127	96	22	20	59.3**
* abnormal bleeding	132	100	108	100	identical
* regular and dysmenorrheal	–	-	56	52	36.1**
3- Type of contraception :					
* Hormonal	111	84	78	72	4.2*
* I.U.D	21	16	30	28	4.2*
4-Diagnosis :					
* severe uterine prolapses	19	14	22	20	0.76
* Endometriosis	16	12	9	8	0.88
* Fibroid in uterus	13	10	13	12	0.89
* P.I.D	16	12	9	8	0.88
* Benign tumor in uterus	-	-	9	8	2.7
* Dysfunctional bleeding	26	20	11	10	4.0
* post birth bleeding	13	10	15	14	0.87
*Myoma / leiomyoma	24	18	15	14	0.86
* Uterine rupture	3	2	-	-	2.0
5- Type of operation :					
* Vaginal	16	12	19	18	0.75
* Subtotal abdominal	116	88	89	82	0.77

Regarding menstrual characteristics , the number is not exclusive

Table (3) shows the distribution of the study sample according to their gynecological history in the two hospitals. Concerning main complains ,this table reveals that ,the main complains was bleeding (88%& 76%) as reported by women in the two hospitals. Regarding to menstrual characteristics, it was found that, all patient included in study sample had Abnormal menstrual bleeding (100%) in the two hospitals. Concerning type of contraception, the majority of them (84%&72%) were used hormonal methods in the two hospitals. It is also found that the most common diagnosis related to study sample was dysfunctional bleeding (20%) in university hospital as compared to severe uterine prolapse (20%) in teaching hospital .also, the most common type of operation used was Subtotal abdominal hysterectomy in the two hospitals. Lastly it was found that ,there was highly significant relating regular dysmenorrheal mean while , other items of complaints were insignificant

Part (II): Assessment of nurses' knowledge about caring of women undergoing hysterectomy before and after program in the university and educational hospital

Table (4): Distribution of nurses according to their mean knowledge score relating genital system before & after intervention in the two hospitals

Items	University hospital		Teaching hospital	
I-**External organs:**	**Before**	**After**	**Before**	**After**
a- Name of each organ	53.3 ± 0.7	70,0 ± 0.8	73.3 ± 0.9	86.7 ± 0.6
	t_1 = 2.1*		**t_2**= 1.5	
b- function of each organ	43.3 ± 0.5	56.7 ± 0.7	50.0 ± 0.8	66.7 ± 0.7
	t_1 = 2.2*		**t_2**= 2.0*	
II-**Internal organs :**	93.3 ± 0.4	100.0 ±0.0	96.7 ± 0.3	100.0 ± 0.0
a- Name of each organ	**t_1**= 2.5*		**t_2**= 1.4	
b- function of each organ	60.0 ± 0.9	73.3 ± 0.8	53.3 ± 0.8	73.3 ± 0.8
	t_1 = 1.5		**t_2** = 2.1*	

(*) Statistically Significant

Table (4) shows distribution of nurses according to their mean knowledge relating genital system before and after intervention in two hospitals. Regarding their knowledge about genital system , there was significant improvement were observed after intervention in the university hospital meanwhile insignificant difference was observed in other hospital .

Table (5): Distribution of nurses according to their mean knowledge score relating hysterectomy before & after intervention in the two hospitals

Items about Hysterectomy	University hospital		Teaching hospital	
	Before	**After**	**Before**	**After**
1-a-definition	80.0±0.9	90.0±0.7	96.7±0.3	100.0±0.0
	t_1 = 33.3*		t_2= 6.7*	
b- types	70.0±0.6	70.0±0.6	43.3±0.6	63.3±0.9
	t_1 = -		t_2= 100.0*	
c- methods	60.0±0.7	76.7±0.6	60.0±0.9	70.0±0.7
	t_1 = 83.5*		t_2= 33.3*	
d- causes	46.7±0.5	50.0±0.5	83.3±0.9	86.7±0.7
	t_1 = 16.5*		t_2= 17.0*	
E-changes after operation	43.3±0.5	73.3±0.7	40.0±0.4	76.7±0.7
	t_1 = 135.4*		t_2= 122.3	
2- sexual relation practice after operation	76.7±0.9	83.3±0.7	76.7±0.9	90.0±0.8
	t_1 = 33.0*		t_2= 66.5*	
3- pain during intercourse	80.0±0.9	83.3±0.7	73.3±0.7	86.7±0.7
	t_1 = 16.5*		t_2= 67.5*	
4- coping of vaginal dryness	63.3±1.0	86.7±0.9	73.3±0.9	76.6±0.8
	t_1 = 17.0*		t_2= 16.5*	
5- Flushing face, neck, swetting increase	66.7±1.0	80.0±0.9	46.7±0.6	80.0±0.7
	t_1 = 117.0*		t_2= 166.5*	
6- reduce rheumatic pain	73.3±1.0	76.7±0.9	76.6±0.8	83.3±0.9
	t_1 = 17.0*		t_2= 33.0*	
7- causes of increase body weight after operation	70.0±1.0	86.7±0.9	46.7±0.6	76.6±0.8
	t_1 = 83.5*		t_2= 149.5*	
8- reliving urine problem	63.3±0.9	83.3±0.7	46.7±0.9	70.0±1.0
	t_1 = 100.0*		t_2= 116.5*	

Table (5) shows distribution of nurses according to their mean knowledge relating hysterectomy before and after intervention in the two hospitals. As clear in the table there was significant improvement were observed in nurses'knowledge after intervention in the two hospitals

Table (6): Distribution of nurses according to their mean knowledge relating tension & anxiety associated with hysterectomy before and after intervention in the two hospitals

Items	University hospital n= 22		Teaching hospital n=18	
	Before	**After**	**Before**	**After**
* Causes of tension & anxiety	53.3 ±0.7	70.0±0.9	33.3 ±0.0	60.0 ± 0.6
	t_1 = 55.7*		**t_2**= 33.4*	
* Reduction of tension & anxiety	56.7±0.6	73.3±0.8	33.3 ±0.0	73.3 ± 0.7
	t_1 = 83.0*		**t_2**= 200.0*	

(p ‹ 0.05)

Table (6) shows distribution of nurses according to their mean knowledge relating tension & anxiety associated with hysterectomy before and after intervention in the two hospitals. As clear in the table there was significant improvement were observed in nurses" knowledge after intervention in the two hospitals (p ‹ 0.05).

Table (7): Distribution of nurses according to their mean knowledge score relating preoperative nursing care before & after intervention in the two hospitals

Items	University hospital n= 22		Teaching hospital n=18	
	Before	**After**	**Before**	**After**
1- history taking	86.7±0.8	93.3±0.5	80.0±0.9	86.7±0.6
	t_1 = 20.9*		**t_2**= 22.3*	
2- Examination done before O.R	83.3±0.7	86.7±0.7	96.6±0.5	100.0±0.0
	t_1 = 17.0*		**t_2**= 28.3*	
3-fasting before operation	83.3±0.9	100.0±0.0	93.3±0.6	100.0±0.0
	t_1 = 83.5*		**t_2**= 47.8*	
4- causes of hair removal at site of operation	73.3±0.8	80.0±0.5	70.0±0.9	86.7±0.9
	t_1 = 33.5*		**t_2**= 55.7*	
5- Enema	73.3±0.8	93.3±0.6	76.6±0.9	90.0±0.6
	t_1 = 100.0*		**t_2**= 44.7*	
6- comfortable methods in order to relieve tension before operation	53.3±0.8	60.0±0.8	40.0±0.5	73.3±0.8
	t_1 = 33.5*		**t_2**= 166.5*	
7- nursing care done at morning day of operation	53.3±0.5	66.7±0.6	60.0±0.7	70.0±0.6
	t_1 = 67.0*		**t_2**= 50.0*	
8- nursing care in operating room	53.3±0.9	63.3±0,8	60.0±0.8	73.3±0.8
	t_1 = 33.3*		**t_2**= 45.0*	
9- Instrument & equipment used during operation.	80.0±0.8	93.3±0.4	90.0±0.7	90.0±0.7
	t_1 = 66.5*		**t_2**= -	

Table (7) shows distribution of nurses according to their mean knowledge relating preoperative nursing care before & after intervention in the two hospitals. As clear in the table there was significant improvement were observed in nurses" knowledge after intervention in the two hospitals

Table (8): Distribution of nurses according to their mean knowledge relating infection control before and after intervention in the two hospitals

Items	University hospital n= 22		Teaching hospital n=18	
	Before	**After**	**Before**	**After**
1- definition of infection	70.0±0.7	96.6±0.9	73.3±0.9	100.0±0.0
	t_1 = 133.0*		**t_2**= 89.0*	
2- method of infection transmission	53.3±0.5	73.3±0.8	56.7±0.8	80.0±0.5
	t_1 = 66.7*		**t_2**= 77.7*	
3- clinical features of infection	46.7±0.7	60.0±0.7	46.7±0.6	63.3±0.8
	t_1 = 66.5*		**t_2**= 55.3*	
4- methods of instrumental cleaning	63.3±0.8	66.7±0.7	66.7±0.9	76.6±0.6
	t_1 = 17.0*		**t_2**= 50.5*	
5- principles of disinfection	43.3±0.5	70.0±0.6	46.7±0.5	66.7±0.8
	t_1 = 133.5*		**t_2**= 100.0*	

Table (8) shows distribution of nurses according to their mean knowledge relating infection control before and after intervention in the two hospitals. As clear in the table there was significant improvement were observed in nurses" knowledge after intervention in the two hospitals

Table (9): Distribution of nurses according to their mean knowledge score relating post operative nursing care before & after intervention in the two hospitals

Items	University hospital n= 22		Teaching hospital n=18	
	Before	**After**	**Before**	**After**
1- position after operation	76.6±0.9	93.3±0.6	72.0 ±0.9	83.0±0.8
	t_1 = 83.0*		**t_2 =55.0***	
2- nursing guides for reducing pain sensation	40.0±0.4	53.3±0.7	33.3±0.0	60.0±0.5
	t_1 = 66.5*		**t_2 =133.5***	
3- removal of tubes that used in operation as catheters	70.0±0.9	93.3±0.4	63.3±1.0	76.6±0.9
	t_1 = 80.2*		**t_2 =66.5***	
4- solution taking after operation	86.7±0.9	86.7±0.8	80.0±0.9	93.3±0.7
	t_1 = -		**t_2 =67.5***	
5- Nutrition after operation	53.3±0.7	80.0±0.5	60.0±0.7	76.6±0.6
	t_1 = 133.5*		**t_2 =83.0***	
6-complications that may be done after operation	50.0±0.6	73.3±1.7	46.7±0.6	70.0±0.7
	t_1 = 116.5*		**t_2 =116.5***	
7- Exercise after operation	33.3±0.0	63.3±0.6	33.3±0.0	60.0±0.6
	t_1 = 150.0*		**t_2 =133.5***	
8- importance of exercise	33.3±0.0	56.7±0.6	40.01±0.3	66.7±0.6
	t_1 = 117.0*		**t_2 =133.5***	
9- hospital discharge plan	33.3±0.0	76.6±0.8	33.3±0.0	73.3±0.9
	t_1 = 216.5*		**t_2 =200.0***	

Table (9) shows distribution of nurses according to their mean knowledge relating post operative nursing care before & after intervention in the two hospitals. It was found significant improvement in nurses" knowledge after intervention in the two hospitals.

Table (10): Distribution of nurses' mean knowledge related to total items of knowledge in the two hospitals

Items	University hospital n= 22		Teaching hospital n=18	
	Before Mean± SD	**After Mean± SD**	**Before Mean± SD**	**After Mean± SD**
1-Genital organs	63.3±0.9	70.0± 0.8	76.6 ±0.9	83.3 ±0.7
	t_1 = 1.5		**t_2 = 0.7**	
2 hysterectomy	70.0±0.9	80.0± 0.9	70.0 ±1.0	76.6± 0.8
	t_1 = 1.0		**t_2 = 0.7**	
3- tension & anxiety	60.0 ±0.7	70.0± 0.5	33.3 ±0.0	66.7 ±0.7
	t_1 = 1.6		**t_2 = 0.5**	
4- pre operative nursing care	70.0± 0.9	83.3 ±0.7	73.3±0.9	83.3± 0.7
	t_1 = 1.3		**t_2 = 0.9**	
5- infection control measures	70.0± 0.9	83.3± 0.8	73.3 ±1.0	83.3 ±0.7
	t_1 = 1.3		**t_2 =0.9**	
6- post operative nursing care	63.3± 0.9	83.3± 0.7	56.7 ±0.9	76.6 ±0.8
	t_1 = 2.0*		**t_2 =2.0***	
7- Exercise practice	40.0 ± 0.5	70.0± 0.8	40.0 ±0.5	70.0 ±0.7
	t_1 = 13.3*		**t_2 =4.0***	
8- hospital discharge plan	66.7 ± 0.9	83.3± 0.8	50.0 ±0.8	76.6± 0.8
	t_1 =1.4		**t_2 =2.7***	

(*)significant P at level 0.05

Table (10) shows distribution of nurses' mean knowledge related to total items of knowledge in the two hospitals. As clear in the table there was improvement in nurses' mean knowledge after program than those before program application for all items & there were significant improvement related to post operative nursing care & exercise practice. In the two hospitals .

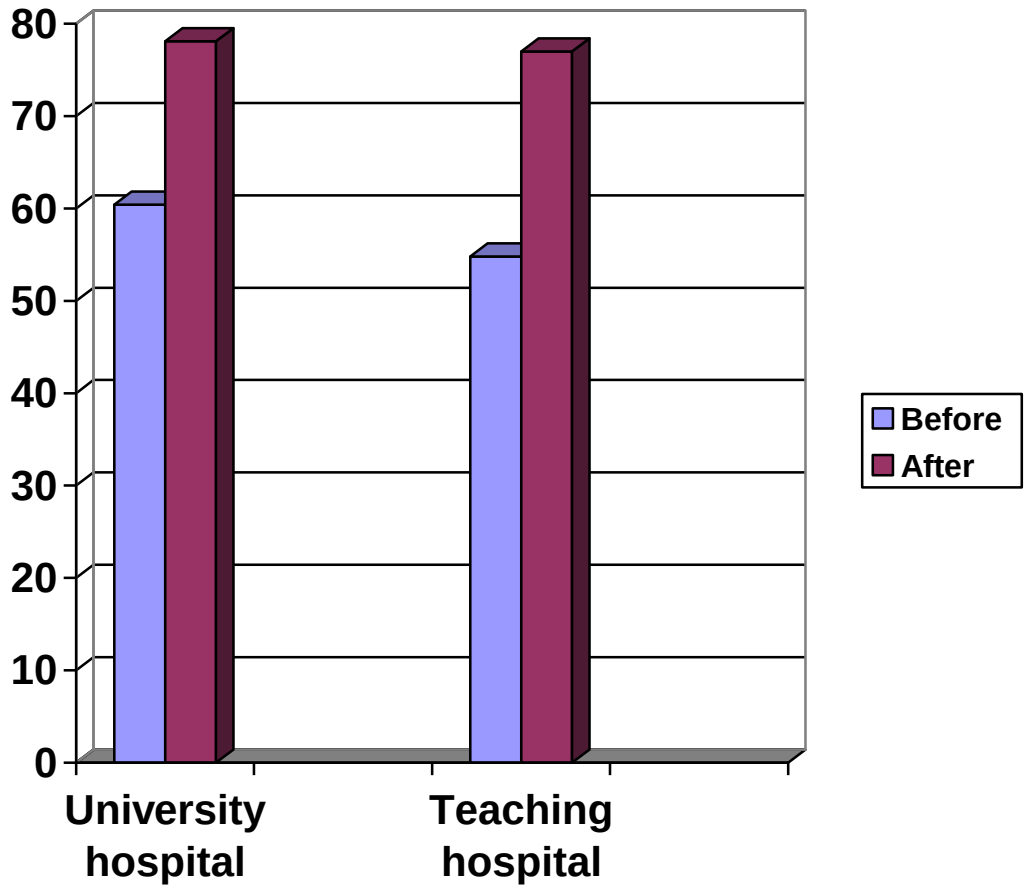

Figure (1) Distribution of nurses according to their total knowledge level

Figure (1) shows distribution of nurses according to their total knowledge level. It was found significant improvement after intervention (78.1, 77.0) than before (60.4, 54.8) in the two hospitals.

Part (III): Assessment of nurses' performance toward women undergoing hysterectomy before and after program application in university and educational hospital.

Table (11) Distribution of nurses according to their mean performance relating preoperative care for patient with hysterectomy before & after program application in the two hospitals

Items	University hospital n= 22		Teaching hospital n=18	
	Before Mean± SD	**After Mean± SD**	**Before Mean± SD**	**After Mean± SD**
1- Preparing the operating theatre	86.8 ± 6.1	100.0± 0.0	95.0 ± 2.2	100.0 ±0.0
	t_1 = 8.8*		**t_2 = 10.0***	
2- Initial assessment.	22.3 ± 7.1	77.7± 6.4	27.8 ± 8.6	79.9± 7.1
	t_1 = 22.2*		**t_2 =12.4***	
3- Psychological preparation.	28.6 ± 9.3	71.4 ±6.3	29.8 ± 9.3	74.9 ±0.7
	t_1 = 17.1*		**t_2= 15.8**	
4- Physical preparation.	62.3 ± 9.4	85.5 ±6.3	72.2 ± 7.1	96.5± 5.3
	t_1 = 9.3*		**t_2 = 9.4***	
5- Special care for gynecological patient.	35.9 ± 8.7	74.1± 6.2	38.3 ± 8.5	77.4 ±6.4
	t_1 = 16.6*		**t_2 =15.6***	
6- Care in the operating room.	46.8 ± 8.6	84.5± 6.3	49.4 ± 8.3	87.3 ±6.1
	t_1 = 16.4*		**t_2 =15.8***	
7- Documentation	-	١٠٠.0± 0.0	-	100.0 ±0.0
	t_1 = identical		**t_2 =identical**	

Table (11) shows nurses mean performance relating preoperative care for patient with hysterectomy before & after program application in the two hospitals. As table reveals , there was highly significant improvement after intervention in the two hospitals

Table (12): Distribution of nurses according to their mean total performance relating preoperative care for patient with hysterectomy before & after program in the two hospitals

Item	University hospital No.=22		Teaching hospital No.=18	
	Before	**After**	**Before**	**After**
Preoperative care	42.7 ± 6.7	74.5±9.6	58.9 ± 5.3	72.8±9.3
	t_1 = 13.2*		**t_2 = 13.0***	

Table (١٢) shows nurses total mean performance relating preoperative care for patient with hysterectomy before & after program application in the two hospitals. As clear in the table there was significant improvement in nurses' mean satisfactory performance after program than those before program application in the two hospitals.

Table (13): Distribution of nurses according to their mean performance relating urinary catheterization and administration of enema in the two hospitals

urinary catheterization and administration of enema	University hospital n= 22 Mean ± SD		Teaching hospital n=18 Mean ± SD	
	Before	**After**	**Before**	**After**
1- Insertion of urinary catheter :	45.0±6.5	78.6±9.7	47.8±6.3	70.6±9.5
	t_1 = 13.4*		t_2 = 8.4*	
2- Removing of urinary catheter:	37.3±8.0	93.2±9.9	45.6± 6.3	90.6±9.7
	t_1 = 20.7*		t_2= 16.7*	
3-Administration of enema :	55.3±8.6	95.0±9.9	52.2 ± 7.3	96.7±9.7
	t_1 = 14.2*		t_2 = 15.2*	

Table (١٣) shows distribution of nurses according to their mean performance relating urinary catheterization and administration of enema before and after program in the two hospitals. As clear in the table there was significant improvement in nurses' mean satisfactory performance after program than those before program application in the two hospitals.

Table (14) : Distribution of nurses according to their mean performance relating intra operative care before and after program in the two hospitals.

	University hospital n= 22 Mean ± SD		**Teaching hospital n=18 Mean ± SD**	
	Before	**After**	**Before**	**After**
Intra operative care	50.5 ± 7.7	63.6 ±0.9	39.4 ± 7.6	100.0± 0.0
	t_1 = 7.7*		**t_2** = 33.7*	

Table (1٤) shows distribution of nurses according to their mean performance relating intra operative care before and after program in the two hospitals. As table illustrate, there was highly significant improvement after intervention than before .

Table (15): Distribution of nurses according to their mean performance relating to self protection before and after program in the two hospitals

	University hospital n= 22 Mean ± SD		**Teaching hospital n=18 Mean ± SD**	
	Before	**after**	**Before**	**after**
1-Hand washing techniques:	41.8± 8.5	89.1±0.8	58.9± 5.9	98.3±0.6
	t_1 = 27.4*		**t_2 = 28.1***	
2- Masking :	100.0± 0.0	100.0±0.0	100.0± 0.0	100.0±0.0
	identical		**identical**	
3- Gloving :	65.9± 8.3	100.0±0.0	67.8± 6.4	100.0±0.0
	t_1 = 18.9*		**t_2 = 21.5***	
4- Gowning :	90.1± 5.7	100.0±0.0	90.6± 4.5	100.0±0.0
	t_1 = 8.3*		**t_2 = 8.9***	
5- Skin disinfection :	25.9± 6.6	84.5±7.2	33.3 ± 5.4	83.3±1.0
	t_1 = 39.1*		**t_2 = 38.5***	

Table (15) shows distribution of nurses according to their mean performance relating to self protection before and after program in the two hospitals. As table illustrate, there was highly significant improvement after intervention than before .

Table (16) : Distribution of nurses according to their mean performance relating to instrument and equipment before and after program in the two hospitals

Items	University hospital n= 22 Mean ± SD		Teaching hospital n=18 Mean ± SD	
	Before	**after**	**Before**	**after**
1-Decontamination :	100.0± 0.0	100.0±0.0	100.0± 0.0	100.0±0.0
	Identical		Identical	
2- Cleaning :	50.9± 8.5	84.6±1.5	46.1 ± 5.2	90.0±1.0
	t_1 = 18.7*		**t_2= 16.5***	
3- High level disinfection :	58.6± 8.6	87.3±1.4	58.9 ± 5.2	98.3±0.6
	t_1 = 15.1*		**t_2 = 32.0***	
4- Sterilization :	100.0± 0.0	100.0±0.0	100.0± 0.0	100.0±0.0
	Identical		Identical	
5- Traffic flow for personnel :	100.0± 0.0	100.0±0.0	100.0± 0.0	100.0±0.0
	Identical		Identical	
6- Traffic flow for articles : y	100.0± 0.0	100.0±0.0	100.0± 0.0	100.0±0.0
	Identical		Identical	

Table (16) shows Distribution of nurses according to their mean performance relating to instrument and equipment before and after program in the two hospitals. As table reveals , there was significant improvement in cleaning & high level disinfection after intervention than before in both hospitals while nurses were qualified in other items in both hospital.

Table (17): Distribution of nurses according to their mean performance relating change wound dressing and aseptic technique before and after program in the two hospitals

Items	University hospital n= 22 Mean ± SD		Teaching hospital n=18 Mean ± SD	
	Before	**After**	**Before**	**After**
1-changing wound dressing :	38.2 ±8.6	100.0±0.0	47.2±6.0	100.0±0.0
	t_1 = 38.6*		**t_2** = 37.7*	
11-Aseptic technique:	27.3 ±7.0	83.2± 2.1	38.3±4.8	81.7± 1.5
	t_1 = 34.9*		**t_2** = 36.2*	

Table (17) shows distribution of nurses according to their mean performance relating change wound dressing and aseptic technique before and after program in the two hospitals. As table illustrates , there was highly significant improvement in changing wound dressing and aseptic technique after intervention than before in both hospitals.

Table (18): Distribution of nurses according to their mean performance relating post operative care for hysterectomy patient before and after program in the two hospitals

Items	University hospital n= 22 Mean ± SD		Teaching hospital n=18 Mean ± SD	
	Before	**after**	**Before**	**after**
1- Immediate post operative care :				
* Accompany the woman to recovery area	55.3±6.3	83.9±3.2	55.8±6.3	86.7±3.0
* Take history and data from records concerning operation.	65.8±5.0	95.6±2.3	60.9±4.9	98.2±2.2
* Place the woman in the recovery position.	46.1±7.2	75.9±4.1	47.6±7.1	77.8±4.0
* Assess the woman's condition immediately after the operation.	53.8±6.5	82.1±3.2	54.5±6.4	85.3±3.0
***** Documentation: vital signs in schedule as ordered and degree of consciousness. Intake and output, complications , medications, , psychological condition.	52.8±6.6	80.4±3.3	53.9±6.5	84.1±3.1
Total	٥٤.8±6.3	83.6± 3.2	55.7± 6.2	86.4± 3.1

2- Late post operative care :	**Before**	**after**	**Before**	**after**
* Put patient on side, keeps an airway in place and observe her constantly until she responds	45.4±7.3	73.0±4.3	45.9±7.3	75.7±4.2
* Take complete assessment upon woman's arrival in the wardroom.	47.8±7.2	75.9±4.1	48.3±7.2	77.4±3.9
* Check vital signs as ordered.	100.0±0.0	100.0±0.0	100.0±0.0	100.0±0.0
* Provide wound care.				
* Give medication as order.	49.2±6.9	71.1±3.9	50.5±6.8	79.8±3.7
* Check drainage tubes.	92.1±2.4	100.0±0.0	93.2±2.3	100.0±0.0
* Check intake and output.	51.0±6.6	82.3±3.2	52.3±6.5	84.1±3.1
* Give clear liquids on first	71.6±4.5	97.2±2.3	72.0±4.5	98.9±2.2
postoperative day if bowel sound is good.	68.0±4.85	93.8±2.4	69.2±4.7	96.7±2.3
* Provide respiratory care.				
* Encourage early	46.8±7.2	74.8±4.2	47.3±7.1	77.1±3.9
ambulation on the day of operation after surgery and encourage change of position every 3 hours.	53.0±6.5	82.2±3.2	54.3±6.4	84.6±3.1
* Promote exercise.				
* Observe for post-operative	52.3±6.6	82.1±3.2	53.9±6.5	83.8±3.1
complications.	55.9±6.3	88.4±2.8	56.7±6.2	89.7±2.7
* Prepare the patient for discharge and final examination by the surgeon. Remove all drains and dress the wound.	54.6±6.3	83.9±3.2	55.9±6.3	85.5±3.0
* Give written specific postoperative instructions to the patient.	57.7±6.1	89.6±2.8	59.4±6.0	92.3±2.4
* Documentation	29.1± 7.6	72.7± 1.0	57.2± 8.5	98.3± 0.6
Total	60.4± 5.6	85.7± 3.0	59.4± 5.6	87.5± 2.7

Table (18) shows distribution of nurses according to their mean performance relating post operative care for hysterectomy patient before and after program in the two hospitals. As table illustrates , there was highly significant improvement after intervention than before , the nurses were well improved in teaching hospital than university hospital after intervention.

Table (19) : Distribution of nurses according to their mean performance relating pre , intra & post operative care for hysterectomy patient before and after program in the two hospitals

Items	University hospital n= 22 Mean ± SD		Teaching hospital n=18 Mean ± SD	
	Before	**after**	**Before**	**after**
1- Preoperative care	45.5±9.8	85.3± 6.3	49.2± 9.6	89.6± 5.1
	t_1 = 15.9*		**t_2 = 16.2***	
2-Intra operative care :	53.0± 9.4	87.4± 5.1	56.0± 9.2	95.2± 5.4
	t_1 = 15.0*		**t_2 = 15.7***	
3-Post operative care :	37.9± 8.7	77.9± 6.4	50.3± 9.6	97.5± 5.4
	t_1 = 17.4		**t_2 = 18.2***	

Table (١٩) shows distribution of nurses according to their mean performance relating pre, intra & post operative care for hysterectomy patient before and after program in the two hospitals. As table illustrates , there was highly significant improvement after intervention than before .

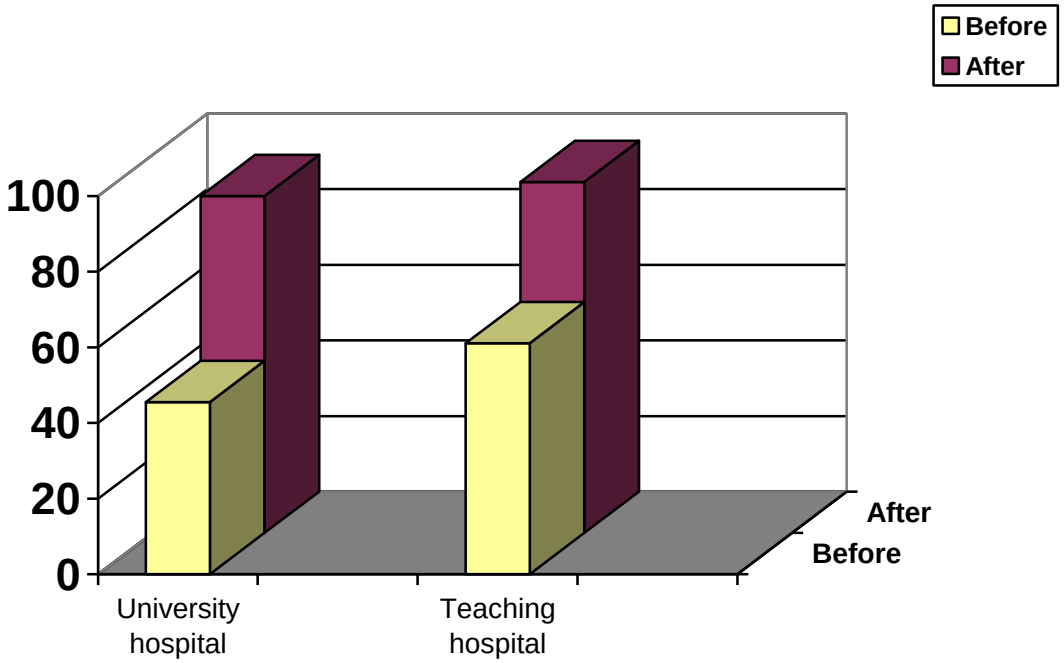

Figure (2) Distribution of nurses according to their total performance level in the two hospitals

Figure (2) shows distribution of nurses according to their total mean performance score level. It was found significant improvement after intervention (89.1, 92.8) than before (45.5, 61.1) in the two hospitals

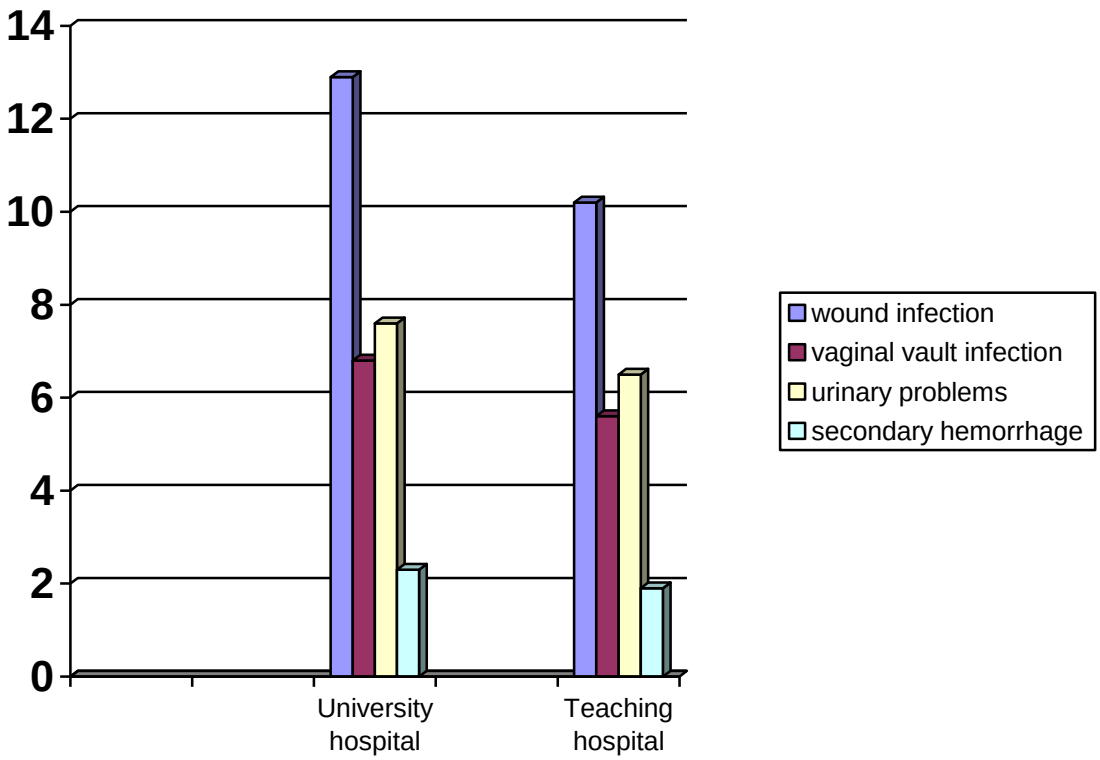

Figure (3) Effect of nursing training program about nursing care of women undergoing hysterectomy on post operative complications .

Figure (3) shows the effect of nursing training program about nursing care of women undergoing hysterectomy on post operative complications . As clear in the figure , wound infection was the most common complication in the two hospital followed by urinary problems , and it was found also that post operative complications were less in teaching hospital than university hospital & P> 0.05 insignificant .

Table (20) : Distribution of studied women according to their satisfaction about nursing care provided to them (pre & post program)

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Patient satisfaction	Pre program		Post program		X^2
	No	%	No	%	
University hospital					
• Satisfactory	53	40.1	98	74.2	4.9*
• Unsatisfactory	79	59.9	34	25.8	
Teaching hospital					
• Satisfactory	67	62.0	84	77.8	6.4*
• Unsatisfactory	41	38.0	24	22.2	

This table showed that the majority of mothers are more satisfactory in post program in comparison to pre program with highly statistically significant difference ($p< 0.05$) . patient satisfaction was well improved in teaching hospital than university hospital .

Part IV: Correlations between nurses'(knowledge, performance)& their demographic data after intervention .

Table (21) : Correlation between nurses' knowledge & their demographic data after intervention .

Items	Good (10)	Excellent (30)	r test
Age • ‹30 years • 30 – years • 35 - 40 years	4.7±0.0 0.7±0.6 4.6±0.6	15.3±0.8 10.3±0.6 4.4±0.6	-0.81
Experience years • ↓5 years • 5- years • ≥10 years	1.3±0.6 0.8±0.6 7.9±0.6	6.7±0.6 2.2±0.6 11.1±0.6	0.67
Qualifications: • Diploma • Technical	7.7±0.6 2.3±0.6	28.3±7.6 1.7±0.6	0.92
Attending program about nursing care in O.R • YES	7.0±0.6	1.3±0.6	0.43

This table reveals that the degree of improvement in nurses knowledge score was higher in nurses with young age (<35 years) , their experience years (<10 years) and nurses with diploma . Also , this table clears that , the mean knowledge score was higher for nurses who had training program.

Table (22) : Correlation between nurses' performance & their demographic data after intervention .

Items	Good (10)	Excellent (30)	r test
Age			
• ‹30 years	0.6±0.6	7.3±0.6	
• 30 – years	1.7±0.6	9.3±0.6	0.97
• 35 - 40 years	1.7±0.6	19.4±0.6	
Experience years			
• ‹5 years	0.4±0.6	7.6±0.6	
• 5- years	0.2±0.6	12.8±0.6	0.91
• ≥10 years	3.4±0.6	15.6±0.6	
Qualifications:			
• Diploma	3.9±4.0	32.1±0.4	-0.93
• Technical	-	3.9±0.4	
Attending program about nursing care in O.R			
• YES	-	2.3±0.5	0.46

This table illustrates that the degree of improvement in nurses performance score was higher in nurses with old age (≥35 years) , their experience years (≥10 years) and nurses with diploma . Also , this table clears that , the mean performance score was higher for nurses who had training program.