

## Evaluation of Nurses' Practices toward the Control of Patients' Complications at the Respiratory Care Unit in Baghdad Teaching Hospitals

تقويم ممارسات الممرضين تجاه السيطرة على المضاعفات للمرضى الراقدين في وحدة العناية التنفسية المركزة في مستشفيات بغداد التعليمية

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### المستخلص:

**الهدف:** تقويم ممارسات الممرضين العاملين في وحدات العناية المركزة التنفسية تجاه السيطرة على مضاعفات المرضى الراقدين في وحدة العناية التنفسية، وتحديد العلاقة بين هذه الممارسات والصفات الديموغرافية للممرضين.

**المنهجية:** أجريت دراسة وصفية في وحدات العناية المركزة التنفسية في مستشفيات بغداد التعليمية ولمدة من الأول من شباط ٢٠١٣ ولغاية ٣٠ آب ٢٠١٣. اختيرت عينة غرضية "غير احتمالية" من (٧٠) ممرض وممرضة يعملون في وحدات العناية المركزة التنفسية في مستشفيات بغداد التعليمية. جمعت من خلال استبانة مصممة ومكونة من جزئين؛ جزء شمل الصفات الديموغرافية ويحتوي على (٧) فقرات وجزء شمل ممارسات الممرضين المتكون من (٤) محاور تحتوي على (١١٢) فقرة وتم جمع المعلومات بطريقة الملاحظة المباشرة للممرضين في وحدات العناية المركزة التنفسية. حددت ثبات أداة البحث باعتماد الدراسة المصغرة. تم تحليل البيانات باستعمال أساليب الإحصاء الوصفي (التكرارات، النسبة المئوية، الوسط الحسابي، الانحراف المعياري والوسط الحسابي المرجح) والإحصاء الاستنتاجي (الاختبار الانحداري).

**النتائج:** أظهرت نتائج الدراسة أن هناك ضعفاً في بعض ممارسات الممرضين العاملين في وحدات العناية المركزة التنفسية للسيطرة على مضاعفات المريض الراقد في تلك الوحدة. تبين وجود علاقة ذات دلالة إحصائية بين ممارسة الممرضين ومنها (العمر، الجنس، الحالة الاجتماعية ومستوى التعليم وسنوات من العمل في التمريض وسنوات العمل في وحدة العناية المركزة التنفسية والمشاركة في الدورات التدريبية وعدد الدورات التدريبية المتعلقة بوحدة العناية المركزة التنفسية ومكان الدورات التدريبية ومدة الدورات التدريبية وممارسات الممرضين في وحدات العناية التنفسية للسيطرة على مضاعفات المريض في تلك الوحدة.

**التوصيات:** توصي الدراسة بضرورة إعداد وتصميم برنامج خاص لتدريب الممرضين في وحدات العناية المركزة التنفسية وإصدار كتيب يدوي فيما يتعلق بالسيطرة على مضاعفات المريض الراقد في وحدة العناية المركزة التنفسية والتي يجب أن تطبق في تلك الوحدات، فضلاً عن إجراء دراسة لتقويم معارف الممرضين في وحدات العناية المركزة التنفسية تجاه السيطرة على مضاعفات المريض فيها.

### Abstract:

**Objective(s):** To evaluate nurses' practices who work in respiratory intensive care units to control the complications of patients admitted at this unit and determine the relationship between nurses' socio-demographic characteristics and their practices.

**Methodology:** A descriptive study was carried out at Respiratory Care Unit at Baghdad teaching hospitals that started from February 22<sup>th</sup>, 2013 to August 30<sup>th</sup>, 2013. A purposive "non-probability" sample of (70) nurses who work in Respiratory Care Unit was selected from Baghdad teaching hospitals. The data were collected through the use of constructed questionnaire that consists of two parts; (1) Demographic data form that consists of 7 items and (2) nurses' practice form that consists of 4 sections (112) items. Data were collected by means of direct observation technique with the nurses. The reliability of the questionnaire was determined through a pilot study that was carried out through the period from January 6<sup>th</sup> 2013 through February 10<sup>th</sup> 2013. Descriptive statistical measures (frequency, percent, mean of score, Standard deviation and Weighted mean) and inferential statistical (Regression) was used for the data analysis.

**Result:** The findings of the study indicated that there is a practice deficit of Respiratory Care Unit nurses in some aspects relative to control of patient complication. significant relationship was found between nurses' practice and their (age, gender, marital status, level of education, Years of working in nursing, Years of working in RCU, Participation in training courses, Number of training courses related to RCU, Place of training courses in RCU, Duration of training courses in RCU, and in Respiratory Care Unit Nurses' practice to control of patient complication in Respiratory Care Unit.

**Recommendations:** The researchers recommend that special training session, concerning patient complication and standard Respiratory Care Unit nurse practice toward patient complication that should be followed in Respiratory Care Unit wards and booklets should be designated and presented to all Respiratory Care nurses.

**Keywords:** nurses' practice, patients' complications, Respiratory care unit

### Introduction:

**R**espiratory Care Unit assures maximum isolation, barrier nursing, privacy and sterility. This specialized department with provides intensive care and high dependency care in the same unit, with the aid of appropriate pharmaceutical, therapeutic, and diagnostic interventions and modest technical backup<sup>(1)</sup>. The critical care unit is defined as the unit in which comprehensive care of a critically ill patient who is deemed recoverable is carried out, Critical care unit is a specially designed and equipped facility staffed by skilled personnel to provide effective and safe care for dependent patients with life threatening or potentially life threatening problems. The practical problem of defining the critically ill patient arises then. It doesn't mean that all patients in danger of dying are admitted to the unit, just for the reason that a compromise between ideal and limited facility has to be arrived at and the critically ill patients are defined as those patients who are at high risk for actual or potential life-threatening health problems. The more critically ill the patient is, the more likely he or she is to be highly vulnerable, unstable and complex, thereby requiring intense and vigilant nursing care<sup>(2)</sup>.

The critically ill patients frequently suffer long-term physical and psychological complications. For patients mechanically ventilated for more than 7 days, 25% display significant muscle weakness, and approximately 90% of long-term ICU survivors will have ongoing muscle weakness. Prolonged stays in the intensive care unit are also associated with impaired quality of life, functional decline and increased morbidity, mortality, cost of care and length of hospital stay<sup>(3)</sup>.

The role of the intensive care nurse is to provide specialist knowledge and skill when caring for critically unwell people, enhance the delivery of holistic, patient-centered approach in a high tech environment and provide the multidisciplinary team with a unique combination of knowledge and caring. Nurses work in critical care to provide expert level care to acutely unwell people and their family, develop knowledge and skills and master technology to enhance the caring aspects of their practice. A clinically competent ICU nurse provides evidence-based care, which promotes patient autonomy; safety, equality and

continuity of care. Clinical skills that are inherent in an experienced ICU nurse include being able to recognize abnormal situations, encompassing diagnostic assessments, patient monitoring and management of complex equipment. The application of these skills is suitable for acutely unwell patients where the focus of the ICU nurse is to problem-solve severe or urgent problems<sup>(4)</sup>.

**Methodology:** a descriptive study was carried out at Respiratory Care Unit wards of Baghdad teaching hospitals started from February 22<sup>th</sup>, 2013 until the August 30<sup>th</sup>, 2013. An official permission was other equipment used on respiratory care unit obtained from the Ministry of planning/central council of Statistics for the acceptance of the questionnaire draft. Another approval is issued from the Ministry of Health/ The study has been conducted on the Respiratory Care Unit nursing staff who are working in Respiratory Care Unit nursing wards at Baghdad Teaching Hospital (13 Respiratory Care Unit nurses), Al-Shaheed Ghazi Al-Hareeri Teaching Hospital (30 Respiratory Care Unit nurses), Al-Kathimiyah Teaching Hospital (13 Respiratory Care Unit nurses), Al-Yarmook Teaching Hospital (14 Respiratory Care Unit nurses). A purposive non-probability sample of (70) Respiratory Care Unit nurses, who were working in Respiratory Care Unit wards, were selected from Baghdad teaching hospitals. The samples have been selected based on the following criteria: {1} both male and female Respiratory Care Unit nurse who were working in Respiratory Care Unit wards. {2} those nurses should worked at least one year experience in Respiratory Care Unit wards. {3} The Respiratory Care Unit nurses are with different categories (school and secondary nursing graduates, medical institute and college and post nurse's graduates). {4} their ages are (20) years and older. While the samples have been exclusion from the study: {1} both male and female nurses' not working in Respiratory Care Unit wards. {2} those nurses should work at less than one year experience in Respiratory Care Unit wards. {3} their ages are less than (20) years. A questionnaire was designed and constructed by the researcher to measure the variable. Such a construction was employed through the review of literature and related studies. The questionnaire consisted of two parts:

Part 1: Demographic Data Form: A demographic data sheet, consisted of (7) items, which included age, gender, marital status, level of education, number of years of employment in nursing field, number of years of experience in Respiratory Care Unit wards, sharing in training sessions concerned to Respiratory Care Unit in hospital, number of sharing in training sessions concerned to Respiratory Care Unit inside or outside Iraq and duration of the training session. Part 2: Nurses' Practice Form: The second part of the instrument checklist was comprised of (112) items that concerned with Respiratory Care Unit nurses' practice toward patient complication control in Respiratory Care Unit wards which included four sections as following: Section One: This section includes (8) items presented the Respiratory Care Unit nurses' practice relative to the Nursing preparation Intervention before Patients' admission to the Respiratory Care Unit. Section Two: This section includes (28) items presented the Nursing Intervention after Patients' admission to the Respiratory Care Unit for practice relative to the (7) items to the Intubation process in Respiratory Care Unit ward, (10) items to the Mechanical Ventilation, practice relative to the (11) items to the Control of Infection and Inflammations. Section three: This section includes (72) items presented the Respiratory Care Unit nurses' practice relative to the Nursing Intervention for Patients' inter the Respiratory Care Unit for practice relative to the (3) items to the Change Position, practice relative to the (14) items to the Suctioning, practice relative to the (5) items to the Monitoring (Vital Signs), practice relative to the (3) items to the Assessment of consciousness, practice relative to the (8) items to the CVC Line Insertion Care, practice relative to the (8) items to the Nutrition, practice relative to the (3) items to the Mouth Care, practice relative to the (3) items to the Eyes Care, practice relative to the (3) items to the Ears Care, practice relative to the (3) items to the Nose Care, practice relative to the (5) items to the Skin Care, practice relative to the (14) items to the Foley Catheter Care. Section four: This section includes (4) items presented the Nursing Intervention for Patients' weaning from the ventilator and Extubation in the Respiratory Care Unit. The items have been rated and

scored according to the following Patterns:

1. Three point scales is used for rating the items as Always, Sometime, and Never.
2. The Three point type semantic Deferential scales is scored as 3 for always, 2 for some time and 1 for Never.

The higher grade scoring of the questionnaire (MS) the greater nurses practice toward patient complication control in Respiratory Care Unit wards. The Content validity of the questionnaire for the early developed instrument was determined through the use of (17) panel of experts' who had more than 5 years of experience in job field. To investigate the clarity, relevancy, and adequacy of the instrument items in order to achieve the present study's objectives. A pilot study was exudates from origin samples conducted on purposive sample of (10) Respiratory Care Unit nurses which was selected from the Baghdad teaching hospital in Respiratory Care Unit ward prior to the original study. The pilot was conducted from January 6<sup>th</sup> 2013 through February 10<sup>th</sup> 2013. Reliability of the questionnaire was determined through the use of equivalence Reliability, inter-rater (inter observer) by two observers (the researcher and his colleagues) who they collected data by ways of observation at the same time for the same respiratory care unit nurses practice. ( $r=0.90$ ). Data have been collected through the use of check list of the instrument and by means of an observational technique with the Respiratory Care Unit nurses who work in Respiratory Care Unit ward. Each Respiratory Care Unit nurse spends approximately (25-30) minute to respond to the observational has been documented for frequent observation by the researcher. There were three visits for each Respiratory Care Unit nurses to collect valid data on each Respiratory Care Unit nurse practice. Data were analyzed through the use of statistical package of social sciences (SPSS). The statistical procedures, which were applied for the data analysis and assessment of the results, included the following: a. Descriptive statistics: [Frequency (F) and Percentage (%), Mean of Score, Standard deviation according to the mean of score]. b. Inferential Statistics: [Regression, Weighted mean].

## Results:

**Table 1.** Data Socio-demographic Characteristics

List	Variables	Frequency	Percent
1	Age: Mean(SD )29.7(7.8)		
	Range (20-53)	47	67.1
	20-30	15	21.5
	31-40	8	11.4
2	Gender		
	Male	45	64.3
3	Female	25	35.7
	Marital status		
3	Married	38	54.3
	Single	32	45.7
4	Level of education		
	Preparatory school in nursing	9	12.8
	Nursing Institute	29	41.4
	College of nursing	31	44.3
5	Postgraduate	1	1.4
	Years of working in nursing: M (SD) = 5.7 ± 7.1		
	1-5	47	67.2
	6-10	11	15.8
6	11-15	6	8.6
	16 or more	6	7.4
	Years of working in RCU: M (SD) = 3.8 ± 4.9		
	1-5	56	80.0
7	6-10	7	10.0
	11-15	5	7.2
	16-20	2	2.8
	Participation in training courses		
7	Yes	20	28.6
	No	50	71.4
8	Number of training courses related to RCU		
	1	5	25.0
	2-3	13	65.0
	4 or more	2	10.0
9	Place of training courses in RCU		
	Inside Iraq	17	85.0
10	Outside Iraq	3	15.0
	Duration of training courses in RCU		
	< Week	3	15.0
	1-2 weeks	4	20.0
10	< month	2	10.0
	1-2 months	11	55.0

RCU: Respiratory Care Unit, SD= Standard Deviation, <= less than

Table (1) describes that most of study participants is of (20-30) years old-age (n = 47; 67.1%), most of them are males (n = 45; 64.3%), more than the half of them are married (n = 38; 54.3%), less than the half of them have bachelor degree in nursing (n = 31; 44.3%), most of them has 1-5 years of working in nursing (n = 47; 67.2%), (M (SD) = 5.7 ± 7.1), the majority of them has 1-5 years of working in RCU (n = 56; 80.0%) (M (SD) = 3.8 ± 4.9), more than one quarter of them has participated in training (n = 20; 28.6%), most of these training courses are related to RCU (n = 13; 65.0%), the vast majority of these courses is held inside Iraq (n = 17; 85.0%), and more than the half of these courses lasted for 1-2 months (n = 11; 55.0%).

**Table 2.** Degree of Practices Competence

List	Degree of practice competence	Frequency	Percent
1	Average	11	15.7
2	Good	59	84.3
	Total	70	100.0

Table (2) describes that the majority of participants has good competence in ICU practice (n = 59; 84.3%), and few of them has an average competence (n = 11; 15.7%).

**Table 3.** Association between Study Variables and Nurses' practices

Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Age	.315	.221	.402	1.427	0.184
Gender	5.359	3.778	.403	1.419	0.186
Marital status	-.470-	3.085	-.041-	-.152-	0.882
Level of education	2.690	2.201	.315	1.222	0.250
Number of years services	.526	.472	.397	1.116	0.291
Number of years services in RCU	-.657-	.433	-.489-	-1.515-	0.161
Number of training courses in RCU	-3.403-	1.507	-.759-	-2.258-	0.048
Site of training courses in RCU	-3.304-	4.251	-.222-	-.777-	0.455
Duration of training courses in RCU	.062	.089	.223	.702	0.499

Sig.: significant, Std. Error: Standard Error, t: test, B: Beta value.

Table (3) demonstrates that there is significant association between number of training courses in RCU and nurses' practices (p-value = 0.048).

**Table 4.** Cross-tabulation between Participants' Age and their Practices

Age		Practice		Total	Approx. Sig.
		Moderate	Good		
20-30	Within group	12 (25.5%)	35 (74.5%)	47	.100
	% of level	92.3%	50.0%	67.1%	
31-40	Within group	0	15 (100.0%)	15	
	% of level	0.0%	26.3%	21.4%	
41-50	Within group	1 (14.3%)	6 (85.7%)	7	
	% of level	7.7%	10.5%	10.0%	
51 or older	Within group	0	1 (100.0%)	1	
	% of level	0.0%	1.8%	1.4%	
Total	Within group	13 (18.6%)	57 (81.4%)	70	
	% of level	100.0%	100.0	100.0%	

Approx. Sig: Approximate significant, %=Percentage

Table (4) demonstrates that half of participants who have good practice is within (20-30) years-old age group (n = 35; 50.0%) who account for (74.5%) of participants in this age group, followed by more than quarter of participants who are within (31-40) years-old age group (n = 15; 26.3%).

**Table 5.** Cross-tabulation between Participants' Gender and their Practices

Gender		Practice		Total	Approx. Sig.
		Moderate	Good		
Male	Within group	6 (13.3%)	39 (86.7%)	45	.131
	% of level	46.1%	68.4%	64.3%	
Female	Within group	7 (28.0%)	18 (72.0%)	25	
	% of level	53.9%	31.6%	35.7%	
Total	Within group	13 (18.6%)	57 (81.4%)	70	
	% of level	100.0%	100.0	100.0%	

Approx. Sig: Approximate significant.

Table (5) describes that the majority of male nurses have good practices (n = 39; 86.7%) in comparison to female nurses where most of whom have good practice (n = 18; 72.0%).

**Table 6.** Cross-tabulation between Participants' Level of education and their Practices

Level of education		Practice		Total	Approx. Sig.
		Moderate	Good		
Preparatory Nursing School	Within group	2 (22.2%)	7 (77.8%)	9	.195
	% of level	18.2%	11.9%	12.8%	
Nursing Institute	Within group	6 (20.7%)	23 (79.3%)	29	
	% of level	54.5%	39.0%	41.4%	
College of Nursing	Within group	3 (9.4%)	29 (90.6%)	32	
	% of level	27.3%	49.1%	45.7%	
Total	Within group	11 (15.7%)	59 (84.3%)	70	
	% of level	100.0%	100.0	100.0%	

Approx. Sig: Approximate significant.

Table (6) demonstrates that less than the half of participants who has good competency in practice is college of nursing graduate (n = 29; 49.1%) who account for (90.6%) of those participants.

**Table 7.** Cross-tabulation between Participants' Duration of Working in Nursing and their Practices

Duration of Working in Nursing		Practice		Total	Approx. Sig.
		Moderate	Good		
1-5	Within group	11 (23.4%)	36 (76.6%)	47	.507
	% of level	84.6%	51.4%	67.1%	
6-10	Within group	1 (9.1%)	10 (90.9%)	11	
	% of level	7.7%	14.3%	15.7%	
11-15	Within group	0 (0.0%)	7 (100.0%)	7	
	% of level	0.0%	10.0%	10.0%	
16 or more	Within group	1 (20.0%)	4 (80.0%)	5	
	% of level	7.7%	4.7%	7.1%	
Total	Within group	13 (18.6%)	57 (81.4%)	70	
	% of level	100.0%	100.0	100.0%	

Approx. Sig: Approximate significant, %=Percentage

Table (7) describes that more than the half of participants who has good practices has have (1-5) years duration of working in nursing (n = 36; 51.4%) who account for (76.6%) of participants in this age group.

**Table 8.** T-test for the Overall Practices

	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Practice 1	81.559	69	.000	268.42857	261.8628	274.9944
Practice 2	81.559	69	.000	268.42857	261.8628	274.9944
Practice 3	81.559	69	.000	268.42857	261.8628	274.9944

df: degree of freedom, Sig: significant, t: test, %=Percentage

Table (8) describes that there is highly significant association between the overall practice (1, 2, 3) (P- value = 0.000).

### Discussion:

The presentation a systematically organized interpretation and reasonably

derived discussion of the results with the support of the available literatures and related studies.

Table (1) data Socio-demographic Characteristics, throughout the course of the present study, it has been noticed that approximately that most of study participants is of (20-30) year's old-age (n = 47; 67.1%), the mean age was 29.7 years (Range: 20-53) years old because the Respiratory care unit department it has opened since soon. This finding is indicated that the mean age of the participants' nurses was (33.09 ± 08.16) years<sup>(5)</sup>. And this findings agrees with many studies<sup>(5, 6, 7)</sup> who indicated that the mean of the study through the approximately that most of study participants is of old-age and the mean age. But this finding is inconsistent the majority (58.3%) year' old-age, and working in medical/surgical Intensive Care Units. because working in Respiratory care unit ward are heavy job and need to bodies strong<sup>(8)</sup>. In regard of marital statues more than the half of study sample (n = 38; 54.3%) were married. Concerning the level of education, most of them (n = 31; 44.3%) were less than the half of them have bachelor degree in nursing graduate. This findings consistent with many studies indicated that the mean of the studies through the in regard of marital statues more than the half of study sample were married. Concerning the level of education, most of them were less than the halves of them have bachelor degree in nursing graduate<sup>(9, 10)</sup>. And this finding is inconsistent study's findings show that the typical respondent was a married, Caucasian woman in her late 40s, who had a minimum of a bachelor's degree and worked in a hospital<sup>(11)</sup>. They have bachelor degree in nursing graduate because have a new, development and fresh information and knowledge applied this job. Regarding years of employment in nursing field, more than half of the study sample had (20& more years) employment in nursing field. That most of them has 1-5 years of working in nursing (n = 47; 67.2%), (M (SD) = 5.7 ± 7.1). that represented sample is female and 36% had been employed by the organization for 1-5 years. Approximately 50% of workers were employed full-time in nursing field while in a study which was conducted nurse experience in nursing field Forty-six percent of the

nurse's returned completed questionnaires. Within this sample, most of the nurses were older, European American, and female. Personal and organizational characteristics contributed to differences in levels of job satisfaction, organizational commitment, and 1- and 5-year intent<sup>(13)</sup>. Regarding years of experience in the majority of them has 1-5 years of working in Respiratory care unit (n = 56; 80.0%) (M (SD) = 3.8 ± 4.9). And this finding comes in consistent with Anders, who reported median Intensive Care Unit experience of 2.5 years<sup>(14)</sup>. And this finding comes in consistent reported the nurses working in Intensive Care Unit were Intensive Care Unit trained. The majority were registered nurses Private sector nurses represented 50.3% of all nurses. Some 42.8% of the professional nurses had 0-5 years of experience and 28.7% had 5-10 years<sup>(15)</sup>. And this findings comes in inconsistent with many studies who not reported the mean of the study such as experience in the majority of them has 1-5 years of working in Respiratory care unit<sup>(8,5)</sup>. In regard more than one quarter of them has participated in training (n = 20; 28.6%), most of these training courses are related to Respiratory care unit (n = 13; 65.0%), the vast majority of these courses is held inside Iraq (n = 17; 85.0%), and more than the half of these courses lasted for 1-2 months (n = 11; 55.0%). This finding is consistent indicated 71.4% (n=34) of respondents claimed their knowledge came from clinical work in Intensive Care Unit and continuing education courses (42%)<sup>(16)</sup>. and this finding comes in consistent with reported Results showed that 34 (79.1%) of the ICUs have initial program for training each nursing staff category and 18 (41.9%) had regular continuing education program focusing primarily on nursing procedures and routines and the update in pathologies. Continuing education programs are developed primarily by Intensive Care Unit's nurses. 50.2% of the nurses answered that they attended specialization/extension courses too, in Medical Surgical Nursing or in other areas or in both areas<sup>(17)</sup>. This result is explained decreased of training courses in Respiratory care unit participated. we must increase

encourage on the training courses to improved of health care services in Respiratory Care Unit and see increase training courses inside Iraq and outside Iraq and increase of duration in training courses to improve to improved of health care services in Respiratory Care Unit. It covers all the general principle of complication control in Respiratory Care Unit to emphasize the key role that health care in minimizing the patient complication in Respiratory Care Unit. To improve their knowledge and practice concerning patient complication control in Respiratory Care Unit.

Table (2) Degree of Practice Competence, the result indicated that there was significant comparison relative to describes that the majority of participants has good competence in Intensive care unit practice (n = 59; 84.3%), and few of them has an average competence (n = 11; 15.7%). This finding is consistent indicated to the Here one finds a higher degree of professionalization and university nursing programs. A German-US-American comparative study of 13 Intensive Care Unit nurses each analyzes what effects a higher degree of professionalism has on every day nursing practice. Using the data of structured interviews, dimensions of job perception and aspects of coping capabilities with stress in regard to patient care and relation with physicians of both nursing groups are compared. Results show that US-American nurses often refer to cognitive aspects of being in control of a situation and emphasize their professional part<sup>(18)</sup>. This finding is consistent to a greater percentage of Intensive Care Units nurses held a bachelor's degree. This study found that although some differences existed in Intensive Care Units and medical-surgical nurses' perceptions of nurses and physicians (Registered Nurse) collaboration, there are more similarities between the two areas. Overall, nurses were satisfied with nurses and physicians in medical-surgical Units relationships, with 75% of Intensive Care Units and 65% of medical-surgical Unit nurses reporting satisfaction (p = 0.110). Medical-surgical Unit nurses were less likely to participate in interdisciplinary rounds

than Intensive Care Units nurses (p < 0.001). Intensive Care Units nurses were more likely than MSU nurses to report that physicians treat nurses as handmaidens (p = 0.056) and that physicians displayed unprofessional behavior (p = 0.019)<sup>(19)</sup>. Describe that the majority of participants has good efficiency in the practice of intensive care unit, and a few of them has jurisdiction Average, Because of competencies new university that exist in intensive care and accuracy most of the information and its modernity and the small age, which means physical energy higher and force physical compared to nurses adult age as well as the expansion of information and science advanced because of their university studies in the intensive care unit respiratory control the complications that occur to the patient lying in respiratory Care Unit word.

Table (3) Number of Training Courses in Respiratory Care Unit: Association between Study Variables and Nurses' practices. It Show that there was significant comparison relative to demonstrates that there is significant association between number of training courses in respiratory Care Unit and nurses' practices (p-value = 0.048). This finding is consistent indicated to the participation in the training courses, among the higher-education professionals, was mainly composed of nurses<sup>(20)</sup>. The "correlation between the variables of the study and practice of nurses" To show that there are large compared for shows that there is a significant correlation between the number of training courses in the respiratory Care Unit and practice nurses. Because there is the evolution of scientific information and the skills and experience that would lead to the control of the complications that appeared on the patients admitted to the respiratory care unit.

Table (4) Age: Cross-tabulation between Participants' Age and their Practice It Show that there was significant comparison relative to demonstrates that half of participants who have good practice is within (20-30) years-old age group (n = 35; 50.0%) who account for (74.5%) of participants in this age group, followed by more than quarter of participants who are within (31-40)



years-old age group ( $n = 15$ ; 26.3%). This finding is consistent with Strong positive correlation was noted between BIS and electromyography with an  $r$  value of .749 ( $P < .0001$ ). Age and gender significantly influenced Bispectral Index / Sedation-Agitation Scale correlations. This is necessary to determine the role of BIS monitoring in Intensive Care Units practice<sup>(21)</sup>. This finding is consistent with that knowledge of this reality should be a renewed, yet age-old challenge for the nurse in the search for the constant construction/ reconstruction of Nursing in terms of practice, knowledge and work relations<sup>(22)</sup>. And that they have positive attitudes towards the implementation of quality indicators. In spite of these facts, it is necessary to reduce the complications of the patient through factors renewal age groups there is a need to develop detailed strategies for the implementation of quality indicators that exercise control over the patient's complications in the respiratory care unit.

Table (5) Gender: Cross-tabulation between Participants' Gender and their Practice It Show that there was significant comparison relative to describes that the majority of male nurses have good practices ( $n = 39$ ; 86.7%) in comparison to female nurses where most of whom have good practice ( $n = 18$ ; 72.0%). This finding is inconsistent with many who reported to the most who indicated to the majority were female of direct care providers and with greater than 11 years of experience in critical care and working in medical/surgical Intensive Care Units<sup>(23-25,8)</sup>. The nurses acknowledged the importance of clear, consistent and honest communication with patients and families when conflict arises and rank-ordered the resources found most helpful to patients, families, and nurses in conflict situations. Implications for practice and education are discussed and recommendations for future research are outlined. Describes the vast majority of male nurses have a good practice because of the strength and physical fitness and muscle strength needed by the pathogen strained because of the work that must be made for controlled the patient complications that

occur to him during his stay Respiratory Care Unit.

Table (6) Level of education: Cross-tabulation between Participants' Level of education and their Practice. It Show that there was significant comparison relative to demonstrates that less than the half of participants who has good competency in practice is college of nursing graduate ( $n = 29$ ; 49.1%) who account for (90.6%) of those participants. This finding is consistent with to Bachelor degree graduates scored higher in decisional autonomy ( $P = 0.03$ ). Intensive care unit experience and type of intensive care unit were also important determinants of decisional autonomy ( $P = 0.02$ ). The results revealed moderate autonomy in technical tasks and low decisional autonomy among Hellenic intensive care unit nurses. Factors related to the educational preparation of nurses, gender issues and institutional characteristics might hinder intensive care unit nurses' autonomy in Hellas<sup>(25)</sup>. And this finding is inconsistent with that of to No significant association between Intensive Care Units training, level of education, years of working experience and knowledge. Practice of Intensive Care Units nurses on Ventilation Associated Pneumonia prevention was statistically associated with education level but not with Intensive Care Units training and years of working experience. Hand washing, environment and equipment cleanness during Endotracheal Tube and oral care was inadequate therefore knowledge of Intensive Care Units nurses on Ventilation Associated Pneumonia prevention does not necessarily reflect adequate practical skills<sup>(26)</sup>. And this finding is consistent with the proportion of hospital Register Nurses holding a bachelor's degree or higher ranged from 0% to 77% across the hospitals. After adjusting for patient characteristics and hospital structural characteristics (size, teaching status, level of technology), as well as for nurse staffing, nurse experience, and whether the patient's surgeon was board certified, a 10% increase in the proportion of nurses holding a bachelor's degree was associated with a 5% decrease in both the likelihood of patients dying within 30 days of

admission and the odds of failure to rescue (odds ratio, 0.95; 95% confidence interval, 0.91–0.99 in both cases)<sup>(27)</sup>. In hospitals with higher proportions of nurses educated at the baccalaureate level or higher, surgical patients experienced lower mortality and failure-to-rescue rates. The participants who has good competency in practice is college of nursing graduate because of the advanced information and advanced science and knowledge through which to develop the skills and experience by working in the respiratory care unit that gets him graduate of the College of Nursing to control the complications that occur to the patient through presence in respiratory care unit.

Table (7) Duration of Working in Nursing: Cross-tabulation between Participants' Duration of Working in Nursing and their Practice. It Show that there was significant comparison relative to describes that more than the half of participants who has good practices has have (1-5) years duration of working in nursing (n = 36; 51.4%) who account for (76.6%) of participants in this age group. This finding is consistent with many authors that indicated to with majority years of experience in critical care, and working in medical/surgical Intensive Care Units sand that the length of critical care experience is the best predictor of basic knowledge<sup>(8, 28)</sup>. Describes that more than half of the participants who had good practices have been and (1-5) years duration of the work in the nursing field because of the recent opening of the sections or lounges, intensive care and intensive care unit and respiratory modern nurses that is to say, mostly graduates renewed did not go their tenure long and that gain experience of the rest of the sections leads to the acquisition of good skills and experience to control the modern patient lying in complications and respiratory care unit.

Table (8) Overall Practice: T-test for the Overall Practice. It Show that there was significant comparison relative to describes that there is highly significant association between the overall practice (1, 2, 3) (P-value = 0.000). This finding is consistent with many authors that indicated study results

through nurses participate actively in ventilation and weaning decisions. In addition, the results support an association between the education profile and skill-mix of nurses and the level of collaborative practice in Intensive Care Units. Relevance to clinical practice<sup>(29, 30, 31)</sup>. Mechanical ventilation may result in significant complications if not applied appropriately. Collaborative practice that encourages nursing input into decision-making may improve patient outcomes and reduce complications. There was a great comparison for describing that there is a very important link between general practice and in addition to this, the results support the existence of a link between a file of education and skills mix of nurses and the level of collaborative practice in the intensive care unit and level of education relationship with clinical practice. Mechanical ventilation may lead to serious complications if not properly applied. Which encourages collaborative practice nursing contribution to the decision-making process may improve patient outcomes and reduce or control on the patient complication in the respiratory care unit.

#### **Recommendations:**

1. Special training sessions should be designated and presented to all Respiratory Care Unit nurses that include specific education concerning a weak point detected in nursing practice.
2. Annually evaluation and continuous following up for Respiratory Care Unit nurses' performance to reinforce the constructive practice and correct the week points.
3. Training session should be designated as regular refresher courses to the Respiratory Care Unit nurses' and including the updated information about control of patient complication in Respiratory Care Unit outside of Iraq.
4. A booklet should be designated and distributed to all Respiratory Care Unit Nurses' who work in Respiratory Care Unit wards including standard to control of patient complication in Respiratory Care Unit measures that must be applied and followed in Respiratory Care Unit wards.
5. Respiratory Care Unit Nurses' who have

the highest educational level should be assigned and worked in Respiratory Care Unit wards.

6. Respiratory Care Unit Nurses' have been studied and special orientation to change routine practiced daily in work.

7. Further studies are necessary in order to evaluate Respiratory Care Unit nurses' practice toward to control of patient complication in Respiratory Care Unit wards and to demonstrate the outbreaks that occur in Respiratory Care Unit wards which are responsible for increasing incidence of to control of patient complication in Respiratory Care Unit between Respiratory Care Unit patients.

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