

Evaluation of Nurses' Knowledge about Evidence-Based Practice in General Hospitals at Al-Nasiriyah City, Iraq

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Abstract--- *The objectives the present study aims to find out the knowledge's of nurses about evidence-based practices and to find out the relationship between the nurses' knowledge toward evidence-based practice and their demographic characteristics. Methods: A descriptive study was conducted at the Imam Hussain General Teaching Hospital in Nasiriyah city from October 10, 2019 to April 10, 2020, to achieve the objectives of the present study, a simple randomized (probability sample) consists of 155 nurses was working in several departments of the hospital. The data are collected through using constructed questionnaire designed. The results: The majority of nurses are at age group (20-25) years, mainly females and the majority (63.9%) and have a diploma in nursing. The level of nurse knowledge was moderate to poor in knowledge of evidence-based practices (60.0%). There are statistical significant differences between the nurses' knowledge and their demographic characteristics (educational level, average hours per week, years of nursing service), while there are no statistical significant differences between the nurses' knowledge and their demographic characteristics (age, gender, job description, training courses on evidence-based practices and the workplace). Recommendations: The study was recommended that the Ministry of Health (MOH) should play a key role in attention to training courses on evidence-based practices. In addition, evidence-based practices should be included in the nursing curriculum for students in order to disseminate the basis of this practice, and provide scientific books and journals about evidence-based practice to the nursing team in the hospitals.*

Keywords--- *Evaluation, Nurses' Knowledge, Evidence Based Practice.*

I. Introduction

Evidence based practice (EBP) facilitates clinical decision-making by integrating clinical expertise, patient preferences, and current scientific evidence (1).

Implementation of EBP is associated with positive patient and healthcare outcomes; however, nursing practice often remains driven by non-scientific traditions (2).

The diverse outcomes from such studies identify that implementing evidence-based practice in health care organizations is a complex undertaking (3).

Evidence based practice is a necessary part of providing quality patient care in nursing. It has been linked to lowering costs, enhancing nursing education and new discoveries, and most importantly bettering patient outcomes. It has been shown that evidence based practice betters' patient outcomes by decreasing patient mortality rate (4).

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The institute of Medicine (IOM) stressed the importance of evidence –based practice by adding the goal that 90% of clinical-based decisions will be evidence-based practice by 2020 (5).

It is now 2019 and quickly approaching that time mark. In order to meet this goal, nurses must grasp the concept and usage of evidence-based practice. EBP is a problem-solving approach to the delivery of care that incorporates the best evidence from well-designed studies in combination with a clinician's expertise and patients' preferences within a context of caring (6).

EBP has gained increasing popularity worldwide. The approach entails the uptake of the best available evidence by health professionals when making care decisions. Evidence in the form of robust research findings in addition to individual patient contexts and preferences will enable best practice behaviors and optimize patient outcomes (7).

II. Methodology

2.1 Ethical Considerations

Permission has been obtained from Thi-Qar Health Directorate to ensure their acceptance, cooperation and to arrange for the administrations of general hospitals to do study as well nurses who have agreed to participate in the study.

2.2 Design and Setting of Study

A Descriptive study, which related to find out the knowledge's of nurses about evidence-based practices at the Imam Hussain General Teaching Hospital in Nasiriyah city, Iraq. Initiated from (October 10, 2019 to April 10, 2020). Randomized (probability sample) consists of 155 nurses was working in several departments of the hospital (medical department, surgical department, department of hemodialysis unit, burns department, resuscitation department).

2.3 Instrument of Study

The researchers used constructed questionnaire designed for the purpose of the study, which consists of a two-part: the first part is related to the demographic characteristics. The second part consists of nurses' knowledge about evidence- based practice composed of (20) sub items concerning the definition of evidence-based practices and their areas and sources of information and knowledge.

2.4 Statistical Analysis

The data of the present study is analyzed through using the Statistical Package of Social Sciences (SPSS) version (24). The following statistical data analysis approaches were used in order to analyze data and assess the results of the study. The researchers used descriptive and inferential data analysis to obtain results.

III. Results and Discussion

Table (1), the majority of the study sample at the middle age ranged (20-25) years. In addition, they are accounted for (95) nurses with percent (61.3%) with mean of (22.5) years. These results agree with study who, conducted a research on the Nurses' perceptions of evidence- based practice: a quantitative study at a teaching

hospital in Iran, and the result showed that the majority of the study sample was with a mean age (25) (8). This may be because the Departments of the general hospital specially department critical required bring middle-aged nurses to be more effective and tolerant to treat and care for patients as critical cases.

Table 1: Distribution of the (155) Nurses According to the Demographical Characteristics

Basic Information	Groups	Frequency	Percent
Age groups	20 – 25	95	61.3
	26 – 30	38	24.5
	31 – 35	9	5.8
	36 – 40	9	5.8
	41 and more	4	2.6
	Total	155	100.0
	$\bar{x} \pm S.D.$	22.532 $\pm$ 0.38434	
Gender	Male	56	36.1
	Female	99	63.9
	Total	155	100.0
Educational Level	Secondary nursing school	43	27.7
	Diploma in Nursing	82	52.9
	Bachelor in nursing	30	19.4
	Total	155	100.0
Years of employment	1 - 5	107	69
	6 -10	24	15.5
	11 - 15	15	9.7
	16 - 20	8	5.2
	More than 20 years	1	0.6
	Total	155	100
Average working hours per week	30-35 hours	67	43.2
	36-40 hours	29	18.7
	41-45 hours	2	3.1
	46- 50 hours	56	36.1
	51 hours and more	1	0.6
	Total	155	100
How often do you know about evidence-based practices?	I have no experience with the subject	40	25.8
	Beginner level	31	20.0
	Medium level	63	40.6
	Advanced level	21	13.5
	Total	155	100

In regards to gender, it is noticed that (63.9 %) of the study sample is female and the remaining are male. This result is similar to the study who, conducted a research on the effectiveness of a Computer- Based Educational program on nurses' knowledge, Attitudes, and skill level related to evidence- based practice (9). Moreover, the results showed that the study population consisted of (744) nurses more than half (90.9%) of them were female and (5.6%) male, in additional (3.5%) is Data missing. Concerning the level of education, most of the nurses' 82 (52.9%) in the study sample were having a diploma degree in nursing sciences, which is the largest proportion of the sample, while (27.7%) was graduated from the school of nursing, and (19.4%) were having a bachelor degree in nursing sciences. The result agrees with the study (10). With respect to the years of employment, the majority of the sample is between (1-5) years and they accounted for 107 (69%) of the whole sample. This result is similar to study

(11), who conducted a research on the knowledge, Attitude and practice of Nurses towards Evidence-Based Practice at Al-Medina, KSA, and the result showed that study the years of experience was 1-5 years 124 (41%).

The Average working hours per week from (30- 35) hours per week account for 67 with (43.2%) among all study sample and How often do you know about evidence-based practices the majority of study sample are account 63 (40.6%) with medium level. These result is consistent with the study (12), who conducted a research on Assessing knowledge of Evidence –Based practice among nurses. In addition, the result showed that the majority of the study sample was with duration hours of work in hospital during week was with 27(62.7%), the majority of the study sample was the medium level 30 (69.7%).

The table (2) shows that information of nursing staff on evidence –based practice of Study Sample. Was very poor, as they failed to answer (12) items of the study questionnaire, and these items were (1, 4, 5, 8, 10, 13, 14, 15, 16, 17, 18, and 20). Only (1) item were answered correctly, which is (12). While presented moderate level of assessment in item (2,3,6,7,9,11 and 19). The result demonstrated that study 12 out of 28 subjects scored lower on the knowledge, (m= 6, 9 – sd= 1, 9).

Table 2: Statistically Summary Level of Evaluation for Information on Evidence –based Practice (Knowledge of Nurses) of Study Sample

No.	Information on evidence –based practice (knowledge of nurses)	Nurses Response				Statistics		
		True		False		MS	SD	Eval.
		F	%	F	%			
1	The evidence-based practice is	31	20.0	124	80.0	1.20	0.401	L
2	The evidence-based practice is	94	60.6	61	39.4	1.61	0.490	M
3	The evidence-based practice is	58	37.4	97	62.6	1.37	0.485	M
4	The evidence-based practice is	39	25.2	116	74.8	1.25	0.435	L
5	The evidence-based practice is	45	29.0	110	71.0	1.29	0.455	L
6	The evidence-based practice is	54	34.8	101	65.2	1.35	0.478	M
7	The evidence-based practice is	60	38.7	95	61.3	1.39	0.489	M
8	The evidence-based practice is :	45	29.0	110	71.0	1.29	0.455	L
9	The evidence-based practice is	64	41.3	91	58.7	1.41	0.494	M
10	The evidence-based practice is.....	43	27.7	112	72.3	1.28	0.449	L
11	The evidence-based practice is	100	64.5	55	35.5	1.65	0.464	M
12	The evidence-based practice is	119	76.8	36	23.2	1.77	0.424	H
13	The evidence-based practice is	48	31.0	107	69.0	1.31	0.464	L
14	The evidence-based practice is	35	22.6	120	77.4	1.23	0.419	L
15	In EBP, which of the following is consider the strongest basis for clinical decision-making?	27	17.4	128	82.6	1.17	0.381	L
16	Systematic reviews are the result	47	30.3	108	69.7	1.30	0.461	L
17	The skill of Evidence-based practice for critical appraisal include:	47	30.3	108	69.7	1.30	0.461	L
18	Which form of knowledge is most useful in the clinician's practice setting?	57	36.8	98	63.2	1.37	0.484	L
19	Which source of knowledge individualizes care during Intervention an evidence-based?	69	44.5	86	55.5	1.45	0.499	M
20	Evidence-based practice (EBP) is defined as: Integrating...	50	32.3	105	67.7	1.32	0.469	L

Table (3): shows the Level of Evaluation Through the " Mean of Score" for Nurse`s Knowledge about Evidence Based Practice of Study Sample, And the result was poor level of assessment to the mean of score 93 (60.0 %) for

Nurse's Knowledge. This result is similar to a research on knowledge, attitudes, practice and perceived barriers among nurses in Oman, the results showed that the knowledge of nurses was mean to weak and mid-range less positive comparisons in their attitudes 63.3% (14).

Table 3: Distribution the Level of Evaluation through the " Mean of Score" for Nurse's Knowledge about Evidence Based Practice of Study Sample

Knowledge about Evidence Based Practice	MS	Level of Evaluation	Frequency	Percent
Information on evidence –based practice (knowledge of nurses)	(33.4 - 40)	Good	8	5.2
	(26.7 – 33.3)	Fair	54	34.8
	(20 - 26.6)	Poor	93	60.0
Total			155	100.0

Table (4): shows that there is no statistical significant difference between nurses' age and their knowledge at (p value > 0.05, when analyzed by Chi-Square Tests). This result agrees to claimed that there was no relationship between nurses' age and their knowledge. This could be explained as that there is no role for the nurses' age and their knowledge attainment (10).

Table 4: Distribution the Level of Evaluation Through the " Mean of Score" for Nurse's Knowledge about Evidence Based Practice of Study Sample

Nurses' Knowledge about Evidence Based Practice Age (Years)	No.	Statistics				
		Mean ±S.D.	χ^2	d.f	P. value	Sig
20 – 25	95	2.0632 ± 0.37183	53.292	154	0.159	NS
26 – 30	38	2.0658 ± 0.42982				
31 – 35	9	1.9722 ± 0.40397				
36 – 40	9	2.0000 ± 0.41458				
41and more	4	2.0000 ± 0.20412				
Total	155	2.2532 ± 0.38434				

Mean= Arithmetic Mean, SD = Standard Deviation, χ^2 = Chi-square, No. = Number, d.f. = degree of freedom, P-value= Probability value, NS =Non-Significance.

Table (5): shows that there are no statistical significance differences between nurses' gender and their knowledge about evidence base practice at (p value > 0.05), when analyzed by Chi-Square Tests. Study mentioned that the gender of nurses did not affect their knowledge. This could be explained as that the acquisition of knowledge by nurses did not affected if the nurse was male or female (11).

Table 5: Distribution and Association of for Nurse's Knowledge about Evidence Based Practice with their Gender

Nurses' Knowledge about Evidence Based Practice Gender	No.	Statistics				
		Mean ±S.D.	χ^2	d.f	P. value	Sig
Male	56	1.3768 ± 0.11519	9.298	154	0.594	NS
Female	99	1.3586 ± 0.09821				
Total	155	1.3652 ± 0.10466				

Mean= Arithmetic Mean, SD = Standard Deviation, χ^2 = Chi-square, No. = Number, d.f. = degree of freedom, P-value= Probability value, NS =Non-Significance.

Table (6): shows that their statistical significant association between nurse`s knowledge about evidence Based Practice with their years of working in nursing at (p value < 0.05), when analyzed by Chi-Square Tests. Research stated that there was relationship between nurse`s knowledge about evidence Based Practice with their years of working in nursing (years of experience) (12).

Table 6: Distribution and Association of Nurse`s Knowledge about Evidence Based Practice with Years of Working in Nursing

Nurses' Knowledge about Evidence Based Practice Years of Working in Nursing	No.	Statistics				
		Mean $\pm$ S.D.	χ^2	d.f	P. value	Sig
1-5 year	107	1.3621 $\pm$ 0.11177	310.706	154	0.016	S
6-10 year	24	1.3854 $\pm$ 0.07868				
11-15 year	15	1.3200 $\pm$ 0.07020				
16-20 year	8	1.4125 $\pm$ 0.10264				
21 and more	1	1.5000 $\pm$ 0.000				
Total	155	1.3652 $\pm$.10466				

Mean= Arithmetic Mean, SD = Standard Deviation, χ^2 = Chi-square, No. = Number, d.f. = degree of freedom, P-value= Probability value, S =Significance.

Table (7): illustrated that their statistical significant differences association between nurse`s knowledge about evidence Based Practice with their nurse –to- bed ratio at (p value < 0.05), This result is contrary to study that there was no relationship between the hour`s work of the nurses` and their knowledge (13).

Table 7: Distribution and Association of Nurse`s Knowledge about Evidence based Practice with Nurse –to- Bed Ratio

Nurses' Knowledge about Evidence Based Practice Nurse –to- Bed ratio	No.	Statistics				
		Mean $\pm$ S.D.	χ^2	d.f	P. value	Sig
30-35 hours	67	1.3739 $\pm$ 0.09389	393.378	154	0.004	S
36-40 hours	29	1.3845 $\pm$ 0.13569				
41-45 hours	2	1.4000 $\pm$ 0.07071				
46- 50 hours	56	1.3473 $\pm$ 0.09555				
51 hours - and more	1	1.1500 $\pm$ 0.000				
Total	155	1.3652 $\pm$ 0.10466				

Mean= Arithmetic Mean, SD = Standard Deviation, χ^2 = Chi-square, No. = Number, d.f. = degree of freedom, P-value= Probability value, S =Significance.

IV. Conclusion

The results of this study showed a relationship between nurses` demographic characteristic (educational qualification (p value <0.021) and years of working nursing (p value <0.016), nurse- to bed ratio (p value <0.004) with their knowledge about Evidence- based practice. The demographic characteristic (age (p value <0.159), gender (p value <0.594), nurse practice environment (p value <0.072), job description in health care services facilities (p value < 0.702), number of sessions on evidence- based practices (p value < 0.998) for nurses there is no relationship between them and their knowledge.

V. Recommendation

The ministry of health of Iraq should play a key role in preparing the EBP team that enables individuals to review their habits and ways of thinking to work together toward positive change. Constructing special courses for the nursing team about evidence-based practice in order to update the team knowledge and provision of educational and skill building programs to support the implementation of EBP. Inclusion of EBP competencies in performance appraisals and clinical ladder programs will sustain EBP activities and culture.

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