Evidence-Based Practice and Its Relationship to Quality Improvement: A Cross-Sectional Study among Egyptian Nurses

Ebtsam Aly Abou Hashish[1,2,*] and Sharifah Alsayed[2]

[1]*Faculty of Nursing, Alexandria University, Egypt*
[2]*College of Nursing, King Saud bin Abdul-Aziz University for Health Sciences-Jeddah, Saudi Arabia*

Abstract:

Background:

Implementing Evidence-Based Practice (EBP) and Quality Improvement (QI) were recognized as the core competencies that should be held by all healthcare professionals, especially nurses, as front-line healthcare providers. Assessment of the current level of knowledge, skills, and attitude of nurses, regarding EBP and QI, is important for the design of strategies that could enhance the competence of nurses in such practices and, in turn, promote patient care quality.

Objective:

This study aimed to assess the attitudes, knowledge, and skills of nurses in Evidence-Based Practice (EBP) and Quality Improvement (QI), in addition, to studying the relationship between EBP and QI.

Methods:

A cross-sectional study was conducted using a convenient sample of nurses (N=300) who work in three Egyptian hospitals in Alexandria city, representing the university, governmental, and private health sectors. The EBP and QI questionnaires were used in addition to a demographic form for the studied nurses. Statistical analysis was carried out using ANOVAs, student t-test, Pearson correlation, and Regression analysis (R^2).

Findings:

Nurses displayed positive attitudes toward both EBP and QI. However, they perceived themselves to be lacking sufficient EBP knowledge and need to improve their QI skills. There was a strong positive correlation between EBP and QI with a predictive power of QI on EBP (r= 0.485, R^2 = 0.273, *p*<0.001).

Conclusion:

Nurses need educational support for enhancing their attitude, knowledge, and skills related to EBP and QI. To prepare for educational programs, hospitals and nursing administrators should consider the characteristics of nurses, work schedules, and obstacles in the use of EBP. Hospital managers should also implement effective strategies to resolve the barriers and boost facilitators to increase the use of EBP among Egyptian nurses and promote QI.

Keywords: EBP, Cross-Sectional Study, Hospitals, Nurses, Quality improvement, ANOVA.

Supplementary Table 1. Barriers and facilitatorsto the implementation of EBP as reported by studied nurses

Responses	No.	%
Perceived barriers to EBP implementation* (N=160)		
1. Lack of time, for Reading and searching due to the workload on nurses	160	100.0
2. Lack of adequate staff knowledge and skills of EBP	150	93.75
3. Inadequate training of nurses on EBP especially diplomas degrees	103	64.38
4. Inadequate resources and facilities (Staff, computers, internet, money)	90	56.25

(Supplementary Table 1) contd.....

Responses	No.	%
5. Hospital routine, lack of support (management, senior nurses, physicians	90	56.25
6. Poor language of some staff	30	18.75
7. Staff resistance and non-compliance of nurses with EBP	22	13.75
Perceived facilitators to EBP implementation*(N=201)		
1. Periodic training programs on EBP and nursing research	201	100.00
2. Supportive hospital management	160	79.60
3. Presence of facilities such as internet and learning materials and library	90	44.78
4. Provision of role models' examples for applying knowledge and skills of EBP such asclinical nurse specialists, expert nurse practitioners,	90	44.78
5. Proper assignment (patients and tasks) to allow time for reading and searching	30	14.93
6. Provision of a separate research unit with a quality assurance unit	20	9.95

*Multiple responses by one participant

Supplementary Table 2. Correlation between EBP and QI

Variables	QI							
EBP	QI knowledge		Attitudes towards QI		Skills of QI		**Overall QI**	
	r	**p**	**r**	**p**	**r**	**p**	**r**	**p**
Attitudes Toward EBP	0.090	0.020*	0.087	0.033*	0.232	<0.001*	0.210	<0.001*
Use of EBP	0.262	<0.001	0.249	<0.001	0.396	<0.001*	0.416	<0.001*
Knowledge of EBP	0.252	<0.001*	0.197	0.001*	0.451	<0.001*	0.434	<0.001*
Overall EBP	**0.281**	**<0.001***	**0.244**	**<0.001***	**0.493**	**<0.001***	**0.485**	**<0.001***

r: Pearson coefficient *: Statistically significant at $p \leq 0.05$