Nurses' Competency in Implementing Evidence-Based Practice: A Survey Study from a Governmental Hospital in the United Arab Emirates

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Abstract

Background: While the primary responsibility of nurses is to provide quality care to patients, they also play a vital role in the healthcare system. Hence, meeting the needs of the healthcare system and enhancing it is an essential aspect of their duties.

Methods: Descriptive survey research design was used in this study. For efficiency, this study employed online surveys.

Results: The participants reported the highest level of competence in various aspects of evidence-based practice, such as questioning clinical practices to enhance the quality of care, utilizing internal evidence to describe clinical problems, and systematically collecting practice data as internal evidence for clinical decision-making. More than 60% of participants rated themselves as competent in these areas. On the other hand, the participants reported lower competency levels in critical appraisal of published research studies to determine their strength and applicability to clinical practice, EBP implementation projects, and critically appraising relevant evidence and primary studies, including evaluation and synthesis. Less than 50% of the participants reported competency in these areas, with the majority indicating the need for improvement or being not competent.

Conclusion: This study identified the areas of incompetencies of nurses in relation to EBP implementation in the UAE. Future educational interventions, training, and support for nurses should focus on these areas.

Keywords: Evidenc-Based Practice, EBP, Nursing, Nurses competency, United Arab Emirates, Survey study.

Research Article

1. INTRODUCTION

Patients require nursing services due to disruptions in their physical, mental, emotional, social, cultural, or spiritual well-being. Despite devoting most of their time to providing adequate patient care, nurses are also crucial to the healthcare system. Therefore, responding to the demands of the health systems and improving them is a crucial component of their roles. As the largest group in the healthcare industry, nurses are vital in advancing the field and improving patient care (Khammarnia et al., 2015).

The healthcare sector and the nursing profession face future obstacles, such as changes in the nature of diseases, changes in the patient population, and massive and quick advances in technology and treatment modalities, among many other challenges. Dealing with these massive changes and contributing to facing them requires increased training for registered nurses, especially in the areas of evidence generation and implementation. Undergraduate nursing education programs usually provide the necessary training for future registered nurses (Shayan et al., 2019). In most parts of the region, students pursuing a Bachelor of Science in Nursing participate in a curriculum that combines classroom instruction with practical experience in healthcare settings.

Recently, there has been an increasing focus on evidence-based practice (EBP), which integrates well-designed evidence with care quality, patient assessments, and healthcare professionals' knowledge and experience.

It is essential for all medical professionals to be knowledgeable about evidence-based practice (EBP) and its principles and to be capable of carrying out the steps involved in the EBP implementation process (Azmoude, Farkhondeh, Ahour, & Kabirian, 2017). Despite this, many healthcare providers continue to base clinical intervention decisions on outdated ways of thinking, unproven assumptions, and limited knowledge and expertise (Melnyk et al., 2014). Therefore, it is crucial for nurses to acquire the necessary expertise to effectively apply EBP in clinical settings. By adopting evidence-based practice, nurses can provide safe, high-quality care for their patients, rather than relying on myths, anecdotes, hearsay, peers' opinions, or outdated texts. Implementing EBP in the clinical setting allows nurses to communicate directly with patients and the medical team about the reasoning behind decisions and treatment plans (Oh et al., 2016). High-quality research conducted within the clinical setting has shown that evidence-based practice is essential in delivering high-quality patient care by fostering problem-solving to improve healthcare decision-making during implementation (Wilcox, Fernandez Conde & Kowbel, 2021). Unfortunately, many nurses lack confidence in their ability to effectively utilize EBP, which hinders their ability to use it in clinical situations (Manns, Norton & Darrah, 2015).

One of the main barriers to implementing EBP in nursing in the UAE is the lack of awareness and education. Another significant barrier to implementing EBP in nursing is the lack of access to up-to-date and relevant research evidence. While there is a growing body of research in healthcare, it can be challenging for nurses to stay up-to-date with the latest evidence, especially if they work in areas with limited access to research resources. This limitation can result in nurses relying on outdated or inaccurate information, rather than the most current and relevant evidence (Al-Yateem, Almarzouqi, Dias, Saifan, & Timmins, 2021; Al-Yateem et al., 2019; Al-Yateem, Almarzooqi, Dias, Saifan, & Timmins, 2020; McCreaddie et al., 2018).

A lack of support and resources from the healthcare organization can also hinder EBP implementation in nursing. This includes a lack of time, funding, and

support from managers and leaders to facilitate EBP in practice. Nurses may not have the time to search for and critically appraise evidence, or they may lack the necessary resources to attend workshops or conferences to enhance their skills in EBP (Al-Yateem et al., 2021; Al-yateem et al., 2019; Al-Yateem et al., 2020; McCreaddie et al., 2018).

Language and cultural barriers are also significant obstacles to implementing EBP in nursing in the UAE. Many healthcare professionals in the UAE come from diverse cultural backgrounds and may speak different languages. This can make it challenging to effectively communicate research evidence and translate it into practice (Al-Yateem et al., 2021; Al-yateem et al., 2019; Al-Yateem et al., 2020; McCreaddie et al., 2018).

In conclusion, implementing EBP in nursing in the UAE faces several barriers. Overcoming these barriers will require a concerted effort from nurses, managers, educators, and policy-makers to prioritize EBP and promote a culture of evidence-based practice in nursing. Thus, this work aims to explore the nurse competencies required to confront the challenges of implementing evidence-based practic.

2. Study Aim

This study aims to examine the nursing competency in applying evidence-based practice in their clinical practice in a large governmental hospital in the United Arab Emirates.

3. METHODOLOGY

Research Design

This project will employ a quantitative descriptive survey research design. The purpose of a descriptive research design is to collect data from a large group of people to get a general understanding of the research problem.

Research Setting

This research took place in a large educational hospital in the UAE. The data collection was done through an online survey.

Sampling and Data Collection

The sample for this study involved nurses working at a large governmental hospital in the UAE. All nurses at the facility were invited to participate in the study, and the accessible population of the study included 350 nurses. Out of these, 260 nurses took part in the study and completed the questionnaire.

Data collection

The EBP competency self-assessment scale was used in this study. This tool allows participants to evaluate their level of proficiency in EBP. Among the EBP competencies, 13 are considered necessary for basic practice, and 11 are considered necessary for more advanced levels of care. The scale's reliability is 0.98 as reported in a previous study (Melnyk et al., 2018). Participants use a 4-point Likert scale (1 = Not Competent, 2 = Need Improvement, 3 = Competent, 4 = Highly Competent) to rate themselves on EBP competencies.

4. RESULTS

The majority of the individuals in the dataset are female (97.3%) and fall within the age range of 31-40 years (62.7%). Most individuals in the dataset are from South Asian countries (82.3%) and are married (95.8%). The majority of individuals have more than 5 years of experience (89.6%), and the most common job title is Registered Nurse (86.5%). Table 1 provides information on the count and percentage of individuals based on their gender, age, nationality, marital status, education, experience, and job title.

Overall, the table provides an overview of individuals' competence in various aspects of evidence-based practice. The data can be used to identify areas where individuals may require further training and support to improve their skills and knowledge. The Highest areas of knowledge among participants were ques-

		N	%
Gender	Female	253	97.3%
	Male	7	2.7%
Age	21years – 30 yea	30	11.5%
	31years – 40 years	163	62.7%
	41years – 50 years	51	19.6%
	51years – 60 years	16	6.2%
Nationality	Emirati	14	5.4%
	European	1	0.4%
	Middle Eastern Countries/ Arabic	31	11.9%
	South Asia Countries	214	82.3%
Marital Status	Married	249	95.8%
	Single	11	4.2%
Education	BSN	213	81.9%
	MSN	23	8.8%
	Diploma	24	9.2%
Experience	Less than 1 year	5	1.9%
	years 1-5	22	8.5%
	More than 5	233	89.6%
Job Title	Registered Nurse	225	86.5%
	Charge Nurses	17	6.5%
	Nurse managers or other	18	7%

Table 1: Participants Demographics

tioning clinical practices for the purpose of improving the quality of care, Describes clinical problems using internal evidence, Participates in the formulation of clinical questions using PICO(T) format, and Collects practice data (e.g., individual patient data, quality improvement data) systematically as internal evidence for clinical decision making in the care of individuals, groups and populations. In all these areas more than 60% of participants rated themselves as competent. The lowest areas of competencies include participating in critical appraisal of published research studies to determine their strength and applicability to clinical practice, EBP implementation projects for the purpose of integrating best practices and Critically appraises relevant evidence and primary studies, including evaluation and synthesis. In all these areas less than 50% of the participants reported competency, the majority reported needing improvement in that or being not competent at all.

5. DISCUSSION

To determine the level of evidence-based practice (EBP) competency among nurses working in a large hospital in the UAE, an online EBP Self-Assessment Scale was used to gauge their knowledge, skills, and attitudes. Findings from the study showed that nurses were competent, but they need to be more highly competent in different EBP competency levels despite their high levels of belief in its value.

The study's findings are consistent with those published by researchers studying nursing students in Saudi Arabia and the United States, who also had favorable views of EBP but used it less frequently in routine clinical practice. Participation in EBP activities correlates to nurses' competency levels toward various EBP tools. However, the study found that many nurses do not participate in EBP activities, indicating a need to increase their competence in implementing EBP.

Nurses with previous EBP training had considerably higher scores than those who had not, which is consistent with earlier research showing that engaging in EBP activities was one of the important elements in the nursing profession. Although all the nurses in the study had passed the nursing research course provided by their universities, more than a third of them reported needing more training on EBP. Therefore, nursing programs in the Middle East will need to update their curricula to include EBP instruction for all students before graduation.

This study offerd a comprehensive overview of the participants proficiency in different aspects of evidence-based practice, which can be used to identify areas where they require additional training and support to enhance their knowledge and skills. The participants displayed high levels of knowledge in certain areas such as questioning clinical practices for

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	Not competent		Needs improvement		Competent	
	n	%	n	%	n	%
Questions clinical practices for the purpose of improving the quality of care	10	3.8%	67	25.8%	183	70.4%
Describes clinical problems using internal evidence	11	4.2%	74	28.5%	175	67.3%
Participates in the formulation of clinical questions using PICO(T) format	11	4.2%	85	32.7%	164	63.1%
Collects practice data (e.g., individual patient data, quality improvement data) systematically as internal evidence for clinical decision making in the care of individuals, groups and populations	15	5.8%	87	33.5%	158	60.8%
Disseminates best practices supported by evidence to improve quality of care and patient outcomes	12	4.6%	93	35.8%	155	59.6%
Communicates best evidence to individuals, groups, colleagues, and policy makers	13	5.0%	92	35.4%	155	59.6%
Evaluates outcomes of evidence-based decisions and practice changes for individuals, groups and populations to determine best practices	16	6.2%	90	34.6%	154	59.2%
Implements practice changes based on evidence, clinical expertise and patient preferences to improve care processes and patient outcomes	13	5.0%	97	37.3%	150	57.7%
Participates in critical appraisal of pre-appraised evidence	12	4.6%	104	40.0%	144	55.4%
Integrates evidence gathered from external and internal sources in order to plan evidence-based practice changes	15	5.8%	101	38.8%	144	55.4%
Participates in strategies to sustain an evidence-based practice culture	16	6.2%	100	38.5%	144	55.4%
Measures processes and outcomes of evidence-based clinical decisions	18	6.9%	102	39.2%	140	53.8%
Searches for external evidence to answer focused clinical questions	15	5.8%	107	41.2%	138	53.1%
Systematically conducts an exhaustive search for external evidence to answer clinical questions	20	7.7%	102	39.2%	138	53.1%
Integrates a body of external evidence from allied health and related fields with internal evidence in making decisions about patient care	17	6.5%	108	41.5%	135	51.9%
Leads trans-disciplinary teams in applying synthesized evidence to initiate clinical decisions and practice changes to improve the health of individuals, groups, and populations	16	6.2%	109	41.9%	135	51.9%
Mentors others in evidence-based decision making and the evidence-based practice process	19	7.3%	106	40.8%	135	51.9%
Implements strategies to sustain an evidence-based practice culture	19	7.3%	106	40.8%	135	51.9%
Participates in the generation of external evidence with other healthcare professionals	13	5.0%	113	43.5%	134	51.5%
Participates in the evaluation and synthesis of a body of evidence gathered to determine its' strength and applicability to clinical practice.	19	7.3%	109	41.9%	132	50.8%
Formulates evidence-based policies and procedures.	22	8.5%	107	41.2%	131	50.4%
Participates in critical appraisal of published research studies to determine their strength and applicability to clinical practice	21	8.1%	110	42.3%	129	49.6%
EBP implementation projects for the purpose of integrating best practices.	15	5.8%	116	44.6%	129	49.6%
Critically appraises relevant pre-appraised evidenceand primary studies, including evaluation and synthesis.	17	6.5%	117	45.0%	126	48.5%

Table 2: Nurses ratings of their EBP competencies.

Table 2:

the purpose of enhancing care quality, using internal evidence to describe clinical problems, formulating clinical questions, and systematically collecting practice data for clinical decision-making. On the other hand, the lowest areas of competencies include participating in critical appraisal of published research studies to determine their strength and applicability to clinical practice, implementing EBP projects to integrate best practices, and critically appraising relevant evidence and primary studies, including evaluation and synthesis. In all these areas, less than 50% of the participants reported competency, and the majority acknowledged needing improvement or being not competent at all. These areas should form a target for future educational activities and were support for nurses should mainly be focused on.

6. CONCLUSION

This study identified the areas of incompetencies of nurses in relation to EBP implementation in the UAE. Future educational interventions, training, and support for nurses should focus on these areas. In particular these areas include critical appraisal of published research studies to determine their strength and applicability to clinical practice, EBP implementation procedures, and critically appraising relevant evidence and primary studies, including evaluation and synthesis. Within these areas less than 50% of the participants reported competency, with the majority indicating the need for improvement or being not competent.

7. Limitations

The study has some limitations, including its reliance on a small sample size, data from only one nursing hospital, and the potential for bias introduced by participants' reports. Further research is needed to explore the factors beyond a lack of training that impedes nurses from participating in EBP activities. Qualitative research can be carried out to better comprehend nurses' viewpoints and provide answers to the problems resulting from the divide between practice and theory. Moreover, more randomized controlled trials are needed to establish which strategies are most effective in boosting nurses' adoption of evidence-based practice.

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