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Establishing Evidence-Based Practices in Settings with Limited Resources: Case Studies of Achievements



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Article information	Abstract
Article history: Received February 07, 2023 Accepted on June 19, 2023 Available online January 12, 2024	<p>Background: Health and midwifery education should focus on developing a solid basis of evidence-based methods, and optimal care practices adapted to the needs of different regions and cultures to improve the quality and scope of health care.</p> <p>Objectives: To illustrate success by establishing evidence-based practices (EBP). In the Eastern Mediterranean Region, despite the challenging conditions and limited resources.</p> <p>Methodology: Nursing experts from the American Nurses Association and the Midwifery Research Summit in Amman, Jordan, presented seven regional examples of how research has been translated into practice in the region.</p> <p>Results: These findings demonstrate the firm belief of nurses in the Eastern Mediterranean Region in the importance of fostering a robust culture of EBP and advancing the agenda through active health platforms, thereby bridging the gap between evidence and action. The success of the six countries highlights the importance of clinical nursing research in promoting EBP and quality patient care. The challenges highlighted in these stories underscore the necessity of creating national and institutional strategic plans, securing funding, and training for clinical nursing research.</p> <p>Conclusions: The nursing leaders in the eastern Mediterranean region are firmly convinced about the importance of fostering a dynamic culture and an active health platform to drive the agenda. The evidence-action nexus is clear. The success stories of six countries underscore the criticality of clinical nursing research for EBP and enhanced patient care. The challenges presented in these narratives underscore the need to formulate national and institutional strategic plans, allocate funds for earthquake nurses, and prepare for clinical nursing research.</p>
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DOI: [10.33899/min.2024.182180](https://doi.org/10.33899/min.2024.182180), Authors, 2024, College of Nursing, University of Mosul. This is an open-access article under the CC BY 4.0 license (<http://creativecommons.org/licenses/by/4.0/>).

INTRODUCTION

In six regions, facilitated by regional offices. The Eastern Mediterranean region includes Afghanistan, Bahrain, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Palestine, Oman, Pakistan, Qatar, Saudi Arabia, Somalia, Sudan, and Syria. In 2016, the World Health Organization classified countries in the region (including Tunisia, the United Arab Emirates, and Yemen). According to the World Bank's definition of income, countries are categorized into low-, middle-, and high-income based on their Gross National Income (GNI) per capita. This gap in income groups makes it difficult to achieve the Millennium Development Goals of the WHO for the region. Solid science nursing knowledge production depends on high-quality research to inform practices to achieve the Millennium Development Goals. (Salman et al., 2020) Furthermore, nurses should consider income categories in organization-global research, as the principles of Western biomedical research may not be concerned. (Bogren et al., 2023). Therefore, nurses must understand the proposed environment's social environment, values, and culture in low-income countries when designing research and implementation strategies. (Erlandsson et al., 2022). Nurses in EMRO (Eastern Mediterranean Region) countries are dedicated to acquiring scientific nursing knowledge despite the diversity among the regional Member States. The initiatives by EMRO member states to establish evidence-based practice (EBP) platforms are noteworthy and valuable for learning. (Bogren et al., 2022).

METHODS

To improve the quality and accessibility of healthcare, scholarships for medical and midwifery programs should establish a solid basis for implementing best care practices tailored to the specific needs of different regions and cultures worldwide—contribution to this clinical study of nurses and midwives in the eastern region.

The Mediterranean Region summit was held in Amman, Jordan, in July 2016. The summit aims to promote regional and regional partnerships and international relations to develop cooperation, share resources and expertise to increase clinical science knowledge capacity and transform regional priorities into priority needs for BP, as determined by regional nurses and midwifery nurses.

The summit was organized by regional nursing experts in collaboration with the School of Nursing at

Columbia University and was financed by the President's Global Innovation Fund at Columbia University. The collaborators include the School of Nursing at the University of Jordan, the Faculty of Nursing at the University of Science and Technology of Jordan, the Council of Nursing in Jordan, the Department of Nursing, the Faculty of Nursing at the University of Badr in Cairo, the Rac Hariri School of Nursing at the University of Beirut in the United States, the Faculty of Nursing at the University of King Abdulaziz, and WHO EMRO. The study surveyed 37 nurse leaders from 13 states in 22 states, most of whom participated in Delphi surveys to identify clinical nursing and midwifery priorities in their respective regions. At the Summit, participants in these regions shared their experiences developing, planning, and implementing evidence-based practice projects under challenging conditions, including internal conflicts, wars, limited resources, and research capabilities.

Evidence-based practice is crucial for bridging the gap between clinical research and improved practice, as defined by Houser and Oman (2010). This paper aims to outline the successful establishment of EBP in a challenging and resource-limited environment. It highlights the achievements of nurses from six eastern Mediterranean countries in implementing EBP.

Egypt (Fathy)

Egyptian nurses face various complex challenges in their professional roles and careers. Although nursing's primary objective is to provide superior patient care, most of Egypt's medical research has historically been limited to academic environments. Poston and Buescher (2010) point out that nurses at the forefront of direct patient care require extensive expertise, a comprehensive understanding of evidence-based practice (EBP) processes, and a wide range of computer-based skills. In 1998, Egypt established the Children's Cancer Hospital, the only hospital in Egypt to collect and maintain information on nursing practice.

The world symbol of cancer-free childhood, clinical nursing research, and developing evidence-based practice departments in other regional hospitals. The department adopts a philosophy of action research. Stringer (1996) emphasizes the importance of using user-friendly language rather than traditional scientific research, which is technical and complex. He describes action research as the repeated cycle of "observation, thinking, and action." Observation is information collection; thought is exploration, analysis,

explanation, and action is planning, implementation, and evaluation.

Egypt's children's cancer hospitals are a global symbol of noncancer children. They pioneer clinical nursing research and build other regional hospitals' evidence-based practice (EBP) departments. These departments adopt an action research philosophy that prioritizes using user-friendly languages rather than the technical complexity of traditional scientific research, as demonstrated by Stringer (1996). This approach aims to make research results more accessible to nurses and healthcare professionals, thus improving patient care.

He characterized action research as a cycle of observation, reflection, and action. In this sense, observation involves collecting information, and Reflection is akin to analysis. McFarns (1993) framed the discussion of action research within the context of the problem-solving phase. As a result, the Department of Nursing Research and Evidence-Based Practice has begun to address the challenges of clinical nursing. This initiative led to establishing a specialized team in pediatric cancer hospitals that focuses on vein catheters to determine the incidence of infections. This process's planning, implementation, and evaluation stages include rationality, analysis, interpretation, explanation, and subsequent actions. This method enables practical and systematic methods to improve nursing practice and patient outcomes.

Many children with cancer require frequent medications and blood withdrawals, making port catheters essential. After forming a specialized catheter nursing team, the rate of port catheter removals due to infections has significantly decreased.

The project results were presented at the 2012 International Cancer Nursing Conference, entitled 'Design of a Specialized Team of Central Vein Catheter Nurses in the Pediatric Cancer Environment'. To enhance the Department's work, we will establish a research and practice review committee to promote a culture of evidence-based practice (EBP). This committee will support and encourage nurses to participate in EBP, disseminate relevant information, and foster an environment conducive to research, audits, and quality improvement. It will also strengthen the synergy between nursing researchers, nursing practices, and the hospital's mission. The committee will have 15 voting members, including the Chief Nursing Officer, clinical nursing staff, managers, specialists, educators, and the Chief Executive Officer.

At the end of the day, although many cancer patients are treated in the medical research protocol, these protocols often lack a clear definition of the nursing care needed for these patients. The department is focusing on developing evidence-based nursing guidelines to address this gap. These guidelines aim to enhance protocol understanding, minimize errors, standardize nursing care, and establish high treatment standards. The initiative ensures coherence in patient care and contributes to the effectiveness and safety of treatment protocols.

Nurse researchers are essential to promote nurse knowledge and patient-centered care excellence (PPCE). However, support in the clinical setting is urgently needed to support these efforts. The Department of Nursing Research and Evidence-Based Practices provides essential structure and support to develop Evidence-Based Practice (EBP) in hospitals that care for vulnerable children. This support is essential to ensure that nursing practices are not only theoretically sound but also apply and are effective in promoting the outcomes of patients in these sensitive health settings.

Iraq (Ibrahim)

In 1933, Baghdad opened its first official nursing school, marking an important milestone in Iraq's development of nursing education (Garfield & Marton, 2003). In 1962, the University of Baghdad nursing school was founded under the auspices of the World Health Organisation (WHO). After this progress, in 1986, the College of Nursing opened a master's program specializing in community health, medical surgery, mental health, and mother-child health nursing.

The growing need for qualified nursing faculty drives the expansion. However, following the third Gulf War, the situation deteriorated. The Iraqi nursing profession has declined dramatically in the past three decades due to isolation and neglect. This decline was recognized and highlighted in the 2008 WHO report, emphasizing the challenges and setbacks the Iraqi nursing sector faced during this turbulent period.

In response to the challenges posed by Iraq's nursing sector, the Eastern Mediterranean Office of the World Health Organisation (WHO EMRO) hosted a meeting with health experts in various Iraqi provinces to discuss the situation. This led to formulating a five-year national strategy for 2003-2008 and an official action plan for developing nursing and midwifery.

The initiative's main result is the establishment of more than 15 nursing schools in Iraq's universities. Furthermore, Iraq has adopted two basic levels of nursing education and progressively abolished all other levels to streamline and standardize nursing education. There has also been a significant change in social perception and attitude towards nursing.

This change was accompanied by an essential increase in nurses' salaries from less than \$10 a month to between \$800 and \$1500, reflecting a new appreciation and recognition of the profession. Furthermore, the population of nursing students has evolved, with a ratio of 3 0 between female and male students. Another indicator of the growing status of nursing as a profession is the high academic achievement of nursing students, who achieved impressive results on the graduate examination. These changes constitute significant advances in the nursing profession in Iraq, improving the quality of education and the social value of nursing.

Kingdom of Saudi Arabia

Exemplar 1 (Altaweli). According to Thorp (2008), understanding qualitative methods is essential for influencing health professionals' behavior and decision-making. Changes in existing clinical practice are problematic (Belizan et al., 2007). However, no conclusive evidence suggests that health professionals can change their practice regardless of the formulation, design, and delivery provided (Thorp, 2008). Guidelines imposed by health professionals and health system managers are often inconsistent, and gaps persist between recommendations and clinical practices (Fodgren et al., 2013). Nevertheless, the experience described below demonstrates the effectiveness of using evidence-based practice (EBP).

The National Institute of Health and Clinical Excellence of the United Kingdom recommends that women and their children be separated for five years. Women should avoid the first hour after birth and be encouraged as soon as possible to contact their babies with their skin-to-skin contact (NICE 2015, p16). The World Health Organization (2013) also recommended that newborns be bathed 24 hours after birth. If this is not feasible due to cultural reasons, bathing should be delayed for at least 6 hours to prevent high rates of hypothermia.

As a graduate student assigned to a labor and delivery room, I had the opportunity to change the practice of routine newborn bathing by midwives after birth. Over three months, I observed that 78% of the

130 newborns in the intensive care unit experienced hypothermia. In the process of conducting observational research, I also identified several factors that could be associated with hypothermia, including staff lack of awareness of the risks of hypothermia, lack of equipment (radiation heaters), linens and towels, a frigid environment, the weight of the newborn immediately after birth without clothing, overload of work, insufficient communication between staff and parents, and the newborn's immediate bath.

The staff reported that the central air conditioning could not reduce the ambient temperature. After analyzing the data and identifying the problems, I recommended several solutions to promote the thermal regulation of newborns. These included delaying baby bathing until the mother is transferred to postnatal care, covering the baby with dry and warm towels, and ensuring skin-to-skin contact within one hour of birth. These practices are now the standard of care. Evidence-based practice (EBP) was proposed as an essential tool to improve the quality of maternal care (Turnan et al., 2006). This experience taught me how to identify workplace problems using EBP recommendations and implement effective solutions.

Exemplar 2 (Al-Naqshbandi et al.). My work involves direct contact with foreign nurses at King Abdullah University Hospital in Jeddah. My colleagues and I are concerned about the support they provide Saudi patients, and we have addressed this concern through small projects. Forty-six nurses in the cancer unit completed a patient advocacy tool (Bu & Jezewski, 2007). The quality of their activities on behalf of patients was high, but their attitude toward advocating for social justice for patients was low.

To appropriately care for Muslim patients, we held a cross-cultural nursing information session during foreign nurse orientations and their stay in Saudi Arabia. Participating nurses are very sensitive to our encouragement to treat cancer patients, translating our concerns into EBP and reorienting new nurses with cultural awareness and sensitivity. The study highlighted essential issues to be considered when recruiting medical professionals of different nationalities in hospital settings.

Lebanon (Noureddine)

As the knowledge and expertise of advanced nursing researchers are one of the conditions for developing scientific clinical and research projects, the successful history of Lebanon's experience in advanced nursing education deserves to be shared; a small

country near Syria and Israel is facing constant political, security, and economic challenges. Lebanon's nursing profession has struggled for over 40 years to establish the Lebanese Nursing Order in 2002, a national organization regulating nursing practice and education. However, the current nursing practice law does not recognize advanced practitioners and calls for three levels of nurses: assistants trained in technical programs and licensed/registered nurses trained in basic university programs (El-Jardali et al., 2014).

The Lebanese Nursing Union has proposed amending the law to include advanced training, education, administration, and research for nurses. The bill is awaiting parliamentary approval. Meanwhile, nursing schools offer master's degrees to prepare nurses for advanced practice roles to meet the demand for high-quality nursing care. Many of these graduates have significantly contributed to Evidence-Based Practice (EBP). Liverpool University is one of the few universities that hire clinical nurses. It has introduced systematic EBP guidelines for treating acute coronary disease and heart failure patients and monitoring related quality indicators. Other doctoral nurses have researched diabetes to enhance their practices, such as studying nurses' pain management and diabetes knowledge and developing continuing education programs for nurses in these fields (Abdulrahman et al., 2016).

Researchers collaborated with multidisciplinary teams to study patient complications, including ventilator-associated lung infections (VAP), and the success rate of resuscitation. They utilized the findings to create VAP bundles and rapid response teams to enhance patient outcomes. Graduate and ongoing training empowers nurses to implement evidence-based practices in clinical settings.

Somalia (Abubakar)

The majority of deaths occur in low- and middle-income countries, particularly in low-resource environments (McClure et al., 2009). Stillbirth is a highly emotional event, and one of our nurses has authored a paper based on the experiences of Somali mothers. The paper aims to describe the perceptions, care, and causes of losing babies at birth.

A survey was conducted in a maternity unit covering 54 villages, one city, and three hospitals, including 240,000 women. The survey included 70 women who had 2 to 5 deliveries. Almost two-thirds of the women had one birth, while the rest had 2 to 5 deliveries. Approximately 54.7% of the women were satisfied

with the support provided to employees at birth and postpartum. However, hospitalized individuals were much more likely to be satisfied with the care provided (77.3%) compared to home birthers (20%), with a p-value of 0.05.

The survey also revealed that most women were not anxious or depressed. However, it also highlighted the significant problems of abortion in low-resource countries, emphasized the importance of staff support during pregnancy, and underscored the urgent need for more clinical nursing research and evidence-based practice in this area.

Sultanate of Oman (Al Touby)

As Oneke, Ezeoha, Ndukwe, Oibo, Onwe, and Alakh (2013) pointed out, establishing research priorities is essential to strengthening the health system and coordinating funding with national health needs identified by research evidence. The Sultanate of Oman has conducted strategic research on the need for health research and published priority publications on health research on the official website of the Sultanate of Oman Health. Efforts have been made to develop capacity, financing mechanisms, and appropriate use of recommendations to improve the provision of health services to ensure the establishment of systemic health research guidelines (Directorate for Research and Research, 2014).

Over the past year, the Ministry of Health of Oman has led all sectors to develop strategic health research plans. One of the main sectors involved is the medical nursing service. In 2012, a group of clinical nurses from all regions was established, consisting of 15 clinical nurses interested in research and blood pressure monitoring (BP).

Several capacity-building workshops were held to help clinicians improve their research skills, resulting in three proposals for clinical nursing projects and regional trainer training. In 2012, two national seminars were conducted, where over 700 nurses explored the priorities of clinical nursing projects and developed their capacities (Research and Study Directorate, 2015). Training clinical nurses to lead evidence-based practice (EBP) initiatives positively impacts service provision and patient care as these nurses apply their experience and make recommendations related to the healthcare environment (Misso et al., 2016).

Following the success of the 2012 initiative, the Ministry of Health's Department of Nursing held a

second training workshop for 25 clinical nurses from various regions of Oman. The workshop was organized after 14 proposals were submitted, out of which 12 were approved by the Ministry of Health Ethics Committee (Directorate of Research and Studies, 2015).

In 2014, the EBP continued to build the capacity of Omani nurses through two-week workshops, advanced training, and one-week mentoring. The same year, an ethical review was submitted for the study "Wissenschaften und Kenntnisse des Oman Code of Professional Conduct of Nurses and Midwives." In 2015, four nursing clinical proposals were approved for funding by the Ministry of Health National Research Fund (Directorate of Research and Studies, 2015).

Discussion

The success stories of six Eastern Mediterranean countries underscore the significance of clinical nursing research in advancing medical care. Advance EBP and patient quality care. The challenges facing nursing professionals in implementing EBP are similar worldwide, including developing national and institutional strategic plans, funding, and preparing qualified nurses for clinical trials.(Lehane et al., 2019).

Nursing research and participation in scientific dissemination and implementation. The main obstacle to collecting basic information on best practices is funding. Two field studies of clinical and midwifery research published in Africa and the eastern Mediterranean showed the worrying gap between funded and published projects, the clinical priorities identified by nurse practitioners in each region, and the main problems and needs identified.(Engels et al., 2020).

Given the limited resources and concentration challenges facing some EMRO countries, the EBP strategy plan must not focus on funding sources but on priorities. This applies worldwide because funding carries greater priority than real priorities when establishing the EBP Strategic Plan; nurses must respond by identifying priorities in advance and negotiating funding sources to establish funding according to established priorities.

The story highlights the impact of clinical nursing research on improving patient outcomes. Although translating the best evidence into rigorous clinical nursing practice is challenging, regional nurses find it beneficial to improve patient care quality through translation efforts. As demonstrated in Egypt, nurses' attitudes towards implementing evidence-based

practice (EBP) and promoting patient participation can be enhanced by establishing support systems, managing systems, and creating a working environment incorporating clinical research applications.

Nurses worldwide believe that applying the best evidence in their practice is essential. To support clinical research nurses in their roles, it is essential to provide training and education opportunities through continuing professional development programs such as workshops, seminars, or conferences and formal postgraduate programs, including master's and doctoral programs. This requires investment in capacity building and nursing training in clinical nursing research across different countries and health institutions.

Nurses can conduct and translate clinical research. Nurse leaders are encouraged to continue professional development programs to enhance nurses' skills, especially in countries with limited resources. Sharing best practices and lessons globally will help build capacity, although its impact on cost-effectiveness is limited.

The Delphi study was discussed at the Amman Summit, which explored the importance of establishing regional research priorities and EBPs in the strategic planning of regional clinical nursing research. Some stories relate to developing a system and a strategic plan for clinical nursing research and establishing a department in health facilities focused on translating and implementing research.

The nurses in the EMRO region firmly believe that establishing a strong culture of Evidence-Based Practice (EBP) is essential. They are actively creating a health-focused platform to continue the program. The willingness of the European Community (EMRO) to share, cooperate, and promote EBP sets a global example for the advancement of nursing careers.

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