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Editorial

Optimizing Clinical Practice through Rigorous Integration of Scientific Evidence

Optimizando la Práctica Clínica mediante la Integración Rigurosa de la Evidencia Científica

Otimização da Prática Clínica através da Integração Rigorosa de Evidências Científicas

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ABSTRACT

This editorial provides healthcare professionals with critical reflection on the importance of evidence-based practice, as well as the challenges inherent in its implementation. It concludes that the successful integration of scientific evidence in clinical care requires individual and collective commitment ensuring coordinated action. The implementation of evidence-based practice guidelines serves as a catalyst.

Keywords:
Nursing; Evidence-Based Practice; Practice Guideline; Implementation Science; Artificial Intelligence.

Palabras clave:
Enfermería; Práctica Clínica Basada en la Evidencia; Guía de Práctica Clínica; Ciencia de la Implementación; Inteligencia Artificial.

Palavras-chave:
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Editorial

In a global commitment to raise the quality of care in health services, governments from various latitudes have deployed substantial efforts with the purpose of maximizing results and containing costs. Yet, despite initiatives aimed at accelerating the systematic integration of clinical care based on the best available evidence, persistent variations in clinical praxis pose an immutable challenge.

An essential component to mitigate variation in results lies in the availability, acceptance and consistent application of clinical evidence in the healthcare context, embodied in clinical practice guidelines and recommendations supported by evidence. There are examples of these, meticulously crafted, to be found in entities like the Guideline International Development (GIN) and the Registered Nurses' Association of Ontario (RNAO) in Canada, all freely accessible.

We have presented RNAO's Best Practice Guidelines (BPG) in previous editorials of MedUNAB journal and several articles are included on this and the next edition of the journal. These BPG are part of the comprehensive program launched by the RNAO more than two decades ago (1,2).

Evidence-based practice (EBP) encompasses the integration of individual clinical experience, evidence from practice-generated data or real-world evidence, patient preferences and values, along with the best available evidence from systematic reviews of research (3). Robust guidelines or BPG, such as those from RNAO, also incorporate a cost-benefit analysis. These guidelines, developed by expert panels and informed by systematic reviews, address all relevant considerations for clinical decision making, such as risk, prognosis, age, patient values, and institutional Resources, maintaining a balance between the risk and benefits of a recommendation (4). Costs for the health system or the patient, in the absence of universal services, are also an important criterion. The process of developing and evaluating recommendations, fundamental to the soundness of a guideline, must be transparent and explicit. The GRADE (5) method stands out as the most used, offering a systematic and clear approach to evaluate the quality of evidence and the strength of recommendations, allowing the importance of the results for decision making to be categorized.

In Canada, the RNAO stands out by disseminating more than 50 BPG rigorously developed and supported by robust evidence, downloadable for free on its website. The RNAO BPG are updated every 5 years and have been adopted at the individual, organizational and government Levels, extending their impact on improving clinical care and outcomes, as well as patient satisfaction.

EBP requires healthcare professionals to identify recommendations that are supported by high-quality scientific evidence and corroborated by real-world evidence from clinical experience. It should be noted that access to up-to-date evidence can present challenges, especially in clinical settings overwhelmed by workload, competing priorities, and limited access to indexed scientific journal databases. On the other hand, information overload and misinformation increasingly spread through social networks constitute a particularly difficult reality for doctors, nurses and other health professionals in saturated care centers. This is why rigorously developed BPG can serve to close the gap between published scientific evidence and clinical decision making (4).

The extraordinary growth of evidence-based guidelines is not without unintended consequences. The variability in the rigor and formulation of these guidelines points to the need to continually improve the development process and the underlying research base. Sometimes, guidelines are found with conflicting recommendations, posing dilemmas and potentially hampering the quality of patient care and outcomes. This underscores the pressing need for practitioners to acquire the skill to critically evaluate these tools to ensure the selection and implementation of high-quality guidelines.

Effective adoption of evidence-based practice demands a holistic and collaborative approach, involving diverse clinicians, administrators, educators, researchers, health policy makers and patients. It is imperative to foster a culture of continuous learning and improvement in care where research, education, clinical praxis and health policies are harmoniously intertwined to achieve optimal results for patients, organizations and health services.

Likewise, it is essential to address the barriers that hinder the implementation of scientific evidence in clinical practice, such as lack of access to updated resources, resistance to change, and temporal limitations of demanding clinical environments. Continuous training and institutional support become essential elements to empower health professionals in the effective application of evidence-based practice. The role of change agents is a powerful catalyst, especially when they come from the grassroots of clinical practice.

In the area of implementation, RNAO leads with its program of centers committed to excellence in clinical practice - Best Practice Spotlight Organizations (BPSO). With more than 1,500 BPSO, this formal designation certifies that the BPSO is committed to systematically

implement RNAO guidelines with fidelity. RNAO and its host BPSO in various countries are committed to mentor and monitor the progress of their direct BPSOs in order to support rapid and continuous learning.

A central component of the host BPSO is to provide four initial days of training for their direct BPSOs and their change agents or champions. The training is designed based on the tool developed by the RNAO to lead change known internationally as the Leading Change Toolkit. Supported by two complementary conceptual frameworks: Knowledge to Action and Social Movement Action. The toolkit, which will soon be available in Spanish, is now freely available in English on the RNAO website and contains tools and resources to facilitate the integration of evidence into daily practice, promoting sustainable and effective change.

Being at the forefront of implementation science, RNAO is also committed to developing support tools that streamline clinical decision-making and evaluation. Clinical decision tools derived from the BPG are highlighted, with applications available in electronic clinical records that support decision-making and documentation at the point of care. The RNAO, leading these developments, introduces its Nursing Order Sets, designed to integrate effectively into clinical information systems using standardized terminology based on the International Classification for Nursing Practice (ICNP). Additionally, RNAO Clinical Pathways are already being implemented in all long-term residences, in Ontario, Canada.

Evaluating the results of clinical interventions is mandatory in any healthcare system. RNAO demonstrates its active commitment to outcomes assessment through the innovative Nursing Quality Indicators for Reporting and Evaluation (NQuIRE) data system, launched in 2012 (4,6). This system, which is mandatory for all BPSO, collects data and produces reports on nursing-sensitive indicators, reflecting indicators of structure, process and outcomes of care derived from the implementation of BPG.

The exponential expansion of the BPSO program has highlighted the need to analyze data quickly and rigorously. RNAO responds to this challenge by launching a pioneering artificial intelligence initiative. This initiative aims to predict best practices in various clinical areas and analyze patterns in the implementation of their BPG in organizations from different healthcare sectors and various countries, thus promoting rapid learning and continuous improvement.

Artificial intelligence and machine learning models present a significant opportunity to identify common and specific indicators across various clinical topics, from reducing falls and injuries to improving pain management. RNAO leads the way by capturing and sharing details about how implementation of BPG contributes to improvements in clinical and system outcomes. For their part, BPSO, by implementing artificial intelligence and machine learning, can guide their implementation efforts and resources based on the most impactful evidence-based recommendations and interventions, allowing for efficient and effective use of resources and optimal progress. of clinical care and health outcomes.

The results of this initiative are impressive, demonstrating improvements in both reception and adherence to the RNAO BPSO program, as well as tangible clinical outcomes. This positive evolution is reflected in health institutions around the world, highlighting the growing organizational culture of evidence-based practice. In the years ahead we anticipate transformative advances in the way we approach healthcare, and in this context, the RNAO and BPSO around the world emerge as undisputed leaders.

In summary, the availability of evidence-based, best practice guidelines, represents a significant advance in improving clinical care and patient outcomes. However, persistent variability in clinical practice indicates the ongoing need for coherent and systematic approaches to the development, implementation, and evaluation of these guidelines. Global collaboration, led by organizations like RNAO, demonstrates that a positive and sustainable impact on clinical care can be achieved through the adoption of evidence-based practices. I invite you to redouble these efforts, along with constant innovation in development, implementation and evaluation methods, to advance more uniform, efficient and focused clinical care centered on the person, their family and the communities where we live and work.

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