Published in final edited form as:

Nurs Outlook. 2010 ; 58(6): 273–275. doi:10.1016/j.outlook.2010.09.002.

Evidence-Based Practice: Destination or Journey?

Kathleen R. Stevens

The promise of basing healthcare on research-generated knowledge is to improve care and patient outcomes. Fifteen years ago, the realization that research results were not consistently applied in care delivered to patients heralded an intense emphasis on evidence-based practice (EBP). Commonly defined as the integration of best research evidence, clinical expertise, and patient preference¹, EBP was a new field in 1996, when this definition was first published by Sackett and associates. The enduring intent of EBP has been to improve patient outcomes with applied knowledge of *what works best*. As someone who has been involved in the EBP movement since its beginning, in this commentary I examine how far we have come, whether we have fully met our goal, and what the near future holds in our continual quest to improve care.

HOW FAR HAVE WE HAVE COME?

The early literature on EBP was dominated by fundamental questions about EBP such as “What constitutes evidence?” “What type of evidence best informs clinical decisions?” “Will EBP negatively impact individualized care?” Within a relatively short time, those leading the field adopted systematic reviews as the best representation of research results^{1,2,3}; established global², national³, and local entities to generate credible evidence-based clinical guidelines; created freely accessible EBP resources (e.g. National Guidelines Clearinghouse³), and integrated EBP competencies into workforce training.^{4,5} Today, the EBP movement reflects a certain level of maturity, having moved beyond basics of definitions, EBP theories, and research on EBP; today, clinicians, educators, scientists, accreditors, and policy makers have built significant resources and have broadly endorsed the concept of EBP as an elemental part of care necessary to produce intended patient outcomes.

The articles in this issue of *Nursing Outlook* illustrate the maturation of EBP and the progress that has occurred in this short time. EBP can now be regarded as an emerging field of science with theories, measurement instruments, and research findings. This issue highlights four (4) exemplars of what could be regarded as EBP science and practice. Mitchell and associates advance conceptual frameworks in EBP through a comparative analysis of existing theories of evidence-based nursing; in discussing thematic areas that emerge, they add to our understanding of knowledge transfer and utilization. Newhouse and Spring advance interprofessional collaboration as foundational in evidence-based improvement in patient care, describing a number of initiatives in coalition-building and workforce preparation to achieve this paradigmatic shift. Melnyk and associates report on their investigation of EBP as a key variable in quality; their research provides evidence about the associations among organizational culture, group cohesion, job satisfaction and EBP. Finally, Mallory illustrates how professional nursing associations can play a key role in advancing EBP in healthcare

© 2010 Mosby, Inc. All rights reserved.

Publisher's Disclaimer: This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

through sponsoring and funding development of evidence-based practice guidelines; the association exploits its unique advantage in a clinical specialty to build EBP capacity and produce credible guidelines that expertly inform practice. Together, these thoughtful discussions confirm the evolution of the field of EBP and underscore the leadership that nurses have provided. Such remarkable progress in EBP is commendable and has surely contributed to better healthcare.

Through EBP, important strides are being made in translating research results into forms of knowledge that have greater clinical utility⁶ and point to *what to do* in clinical care. But is this enough? Does simply increasing awareness of evidence achieve the goal of improving care?

HAVE WE ARRIVED AT THE DESTINATION?

According to the National Healthcare Quality Report,³ care is still not what it should be in terms of quality and improvements are slow. EBP alone is insufficient to effect *changes* necessary for improvement. This is because major challenges arise upon introducing changes into practice, resulting in a persistent gap between evidence and practice. It is now clear that EBP is not our destination. Rather, EBP represents an early stage of moving research into practice. The small, albeit positive, change in the nation's quality of healthcare indicates that more must be done--the evidence alone is not enough.

One response to this gap is a mandate for innovations in improvement strategies. This endeavor is not without challenges of its own. Recent initiatives to innovate improvement strategies have resulted in dissemination of innovative but unproven improvement strategies. This trend has been criticized as "an approach that runs counter to the principle of following the evidence in selecting interventions that meet quality and safety goals...in favor of action over evidence".⁷ A growing number of experts e.g.,^{7,8,9} urge us to strengthen the scientific evaluation of improvement and safety strategies, declaring that strategies for implementing evidence-based practice should have an evidence base of their own.

The field of EBP, which has made so much progress over the past decade, unfortunately will fall short of its potential to improve patient outcomes unless leaders in the field develop proven strategies to integrate evidence into actual care. The following shortcomings in evaluation of improvement strategies recently have been noted by an Institute of Medicine expert panel¹⁰: Studies are performed in single organizations and do not yield generalizability information; imprecise measurement and insufficient description of the improvement intervention are apparent; studies do not produce information about sustainability of changes; contexts affecting implementation are not considered; cost or value are not estimated; and such research tends to be opportunistic rather than systematically planned.¹⁰ A new trend in quality improvement research has the potential to overcome many of these barriers and accelerate our movement to evidence-based care.

WHAT DOES THE FUTURE HOLD IN OUR QUEST TO IMPROVE CARE?

There is a need to identify the most effective and efficient approaches to achieve change in practice.⁹ In our quest to improve care, research must answer questions such as: Was the new evidence-based care as effective as expected? How difficult was it to fully implement the change? Did the change to evidence-based care cause unanticipated harm to patients or the system? Is the cost of the change in practice sustainable?

By conducting improvement research to answer such questions, we will expand what we know about how to improve care and the strategies that work. Rigorous evaluation of improvement strategies will determine whether, how, and where the intervention for change is effective. This

research will support recommendations about widespread adoption of these improvement strategies. Such a field has been named improvement science.

One of the major impediments to progress in improvement science is the lack of infrastructure and capacity among health scientists who must conduct rigorous, well-designed and action-oriented studies. In addition, the terms used in this field, such as “translational research,” “knowledge translation,” and “implementation,” are not well defined, not used in the same way, and often used interchangeably. These terms are attempts to capture the notion that, although a given clinical practice may be supported by research evidence, there is still a need to develop a research base about the best way to integrate those findings in practice. Other challenges in moving forward are the need for common terminology and taxonomies, frameworks and theories, priorities for research, and methodologies specifically suited to the field. Additionally, there is a dearth of rigorous research approaches described in the field of improvement science.

In response to the need to expand what is known about improvement strategies, the Improvement Science Research Network was established through a grant from the National Institute of Nursing Research (K. Stevens, PI). The primary goal of the Network is to determine which improvement strategies work as we strive to assure effective and safe patient care. Through this national research collaborative, rigorous improvement studies are designed and conducted. Along with a wide array of improvement science stakeholders, Network members have identified research priorities focused on effective strategies in quality improvement and patient safety.¹¹ These research priorities provide a point around which scholars can rally to conduct improvement studies.¹² Such focused work will enable scholars to intensify research efforts and quickly produce seminal research-based knowledge about how to help health professionals employ EBP.

These efforts in improvement science are built on the groundwork of the EBP movement. The principle for both is the same: implementation of the scientific foundation for reliable care. So, let us celebrate our success in EBP and resolve to continue these efforts. The achievements of EBP are considerable and they form the foundation for improvement science. As healthcare professionals stay a steady course while creating the evidential basis for clinical effectiveness and for interventions that improve care, we will realize unparalleled advances in both areas. Indeed, the first principle of management is constancy of purpose.¹³ The constancy of our purpose to improve healthcare will continue to fuel progress in clinical effectiveness and safety. This will be accomplished through effectively implementing the best care to produce the best possible health outcomes.

Acknowledgments

This work is supported by a grant from the National Institute for Nursing Research (NIH IRC2 NR011946-01). The work is possible because of the wide collaboration among the Academic Center for Evidence-Based Practice School of Nursing, UTHSCSA Institute for Integration of Medicine and Science, Westat, Inc., and members of the Improvement Science Research Network Steering Council.

REFERENCES

1. Sackett DL, Rosenberg WMC, Gray JAM, Haynes RB, Richardson WS. Evidence based medicine: What it is and what it isn't. *BMJ* 1996 Jan 13;312(7023):71–72. [PubMed: 8555924]
2. Cochrane Collaboration. About Us. [Accessed August 20, 2010]. Available: <http://www.cochrane.org/>
3. Agency for Healthcare Research and Quality. Evidence-Based Practice. [Accessed August 20, 2010]. Available: <http://www.ahrq.gov>

4. Stevens, KR. Essential competencies for evidence-based practice in nursing. 2nd ed.. San Antonio: University of Texas Health Science Center; 2010.
5. Cronenwett L, Sherwood G, Barnsteiner J, et al. Quality and safety education for nurses. *Nursing Outlook* 2007;55(3):122–131. [PubMed: 17524799]
6. Stevens, KR. ACE Star Model of Knowledge Transformation. Academic Center for Evidence-based Practice. San Antonio: University of Texas Health Science Center San Antonio; 2004 [Accessed August 15, 2010]. Academic Center for Evidence-based Practice. Available www.acestar.uthscsa.edu
7. Auerbach AD, Landefeld CS, Shojania KG. The tension between need to improve care and knowing how to do it. *New England J Med* 2007;357(6):608–613. [PubMed: 17687138]
8. Baker GR. Strengthening the contribution of quality improvement research to evidence based health care. *Qual Saf Health Care* 2006;15:150–151. [PubMed: 16751459]
9. Grol R, Grimshaw J. From best evidence to best practice: effective implementation of change in patients' care. *The Lancet* 2003;362:1225–1230.
10. Institute of Medicine (IOM). Expert views, workshop summary. Washington, DC: National Academies Press; 2008. Creating a business case for quality improvement research.
11. National Institute of Nursing Research. A practice-based research network for improvement science. Grant number 1RC2NR011946-01. 2009 [Accessed August 20, 2010]. Available at <http://projectreporter.nih.gov/>
12. Improvement Science Research Network (ISRN). Research Priorities. [Accessed August 20, 2010]. Available at <http://www.improvementscienceresearch.net>
13. Deming, WE. Out of crisis. Cambridge MA: MIT Press; 1986.