The impact of evidence-based practice in nursing and the next big ideas.

search

WHAT'S NEW   JOURNAL TOPICS   COLUMNS   TABLE OF CONTENTS   LETTERS TO THE EDITOR   CONTINUING EI

LOGIN »

ANA
AMERICAN NURSES ASSOCIATION

OJIN is a peer-reviewed, online publication that addresses current topics affecting nursing practice, research, education, and the wider health care sector.

Find Out More...

Announcements

New Informatics Column Editor: Dr. Ramona Nelson

Permission to Reprint OJIN Articles
Planning a conference or class?

Call for OJIN Manuscripts
on a previous topics...

Benefit for Members
Members have access to current topic

More...

Letter to the Editor

Thank you for your letter to the editor and your compelling responses. You stated, â œA continuing education class, perhaps taught by a mental health professional who specializes in substance abuse would certainly be a benefit to all clinical staff.â

Continue Reading...
View all Letters...

The Impact of Evidence-Based Practice in Nursing and the Next Big Ideas

Kathleen R. Stevens, EdD, RN, ANEF, FA

Abstract

The impact of evidence-based practice (EBP) has echoed acro education, and science. The call for evidence-based quality in healthcare transformation underscores the need for redesigni safe, and efficient. In line with multiple direction-setting reco national experts, nurses have responded to launch initiatives valuable contributions that nurses have made, can make, and deliver on the promise of EBP. Such initiatives include practic and curricular realignment; model and theory development; s the new fields of research; and development of a national rese improvement. This article briefly describes the EBP movemer the impact of EBP on nursing practice, models and framework research. The article concludes with discussion of the next big two federal initiatives, and considers opportunities and challe to support other exciting new thinking in healthcare.

Over the past decade, nurses have been part of a movement that refle any two decades combined. Directions in nursing education in the 1960s established nursing as an applied science. This was the entry of our profession into the age of knowledge. Only in the mid-1990s did it become clear that producing new knowledge was not

enough. To affect better patient outcomes, new knowledge must be transformed into clinically useful forms, effectively implemented across the entire care team within a systems context, and measured in terms of meaningful impact on performance and health outcomes. The recently-articulated vision for the future of nursing in the *Future of Nursing* report ([IOM, 2011a](#)) focuses on the convergence of knowledge, quality, and new functions in nursing. The recommendation that nurses lead interprofessional teams in improving delivery systems and care brings to the fore the necessity for new competencies, beyond evidence-based practice (EBP), that are requisite as nurses transform healthcare. These competencies focus on utilizing knowledge in clinical decision making and producing research evidence on interventions that promote uptake and use by i of providers.

This discussion highlights some of the responses and initiatives that t have taken to maximize the valuable contributions that nurses have n to deliver on the promise of EBP. A number of selected influences of e on nursing and nursing care quality are explored as well as thoughts a moving nursing and healthcare forward.

The EBP Movement

EBP is aimed at hardwiring current knowledge into common care deci

> Evidence-based practice holds great promise for…producing the intended health outcome.

and patient outcomes. Following deficits in healthcare caused sign 2000) a blueprint for healthcare r first *Quality Chasm* report ([IOM, 2](#) from the nation's experts was to e The chasm between what we kno what was practiced was to be cros best practices.

Evidence-based practice holds gr high level of likelihood for produc outcome. The definition of healthcare quality ([Box 1](#)) is foundational t

Box 1. Definition of Quality Healthcare

Definition of Quality Healthcare

Degree to which health services for individuals and populations inc health outcomes and are consistent with current professional knowle

The phrases in this definition bring into focus three aspects of *quality*: targeted health outcomes, and consistency with current knowledge (r an underlying belief that research produces the most reliable knowled given strategy will change a patient's current health status into desire services with current professional knowledge (evidence) is a key goal i calls into play the aim of reducing illogical variation in care by standar evidence.

The EBP movement began with the characterization of the problem—

what we know and what we do in the care of patients ([IOM, 2001](#)). In th
Chasm ([IOM, 2001](#)), IOM experts issued the statement that still drives
initiatives: "Between the health care we have and the care we could ha
chasm" ([IOM, 2001](#), p. 1) and urged all health professions to join effort

A major part of the proposed solution to cross this chasm was "evidence-based practice." Experts continue to generate direction-setting IOM *Chasm* reports ([IOM, 2003](#); [IOM, 2008a](#); [IOM, 2008b](#); [IOM, 2011a](#)); each report consistently identifies evidence-based practice (EBP) as *crucial* in closing the quality chasm. The intended effect of EBP is to standardize healthcare practices to science and best evidence and to reduce illogical variation in care, which is known to produce unpredictable health outcomes. Development of evidence-based practice is fueled by the increasing public and professional demand for accountability in safety and quality improvement in health care.

Leaders in the field have defined EBP as "Integration of best research evidence with clinical expertise and patient values" (Sackett et al, 2000, p. ii). Therefore, EBP unifies research evidence with clinical expertise and encourages individualization of ca preferences. While this early definition of EBP has been paraphrased original version remains most useful and is easily applied in nursing, s with the broader field of EBP. The elements in the definition emphasi rigorous and systematic inquiry; the experience of the clinician; and th providing an enduring and encompassing definition of EBP.

> The entry of EBP onto the healthcare improvement scene constituted a major paradigm shift.

The EBP process has been highly applied research efforts previousl nursing. This characteristic of EBF the research-to-practice effort, in (systematic reviews), new roles (k transformers), new teams (interp upper-management), new practi healthcare learning organizations build the "evidence on evidence- [Grimshaw, 2005](#)). The entry of EB improvement scene constituted a major paradigm shift. This shift was began to think about research results, the way nurses framed the cont way nurses employed change to transform healthcare.
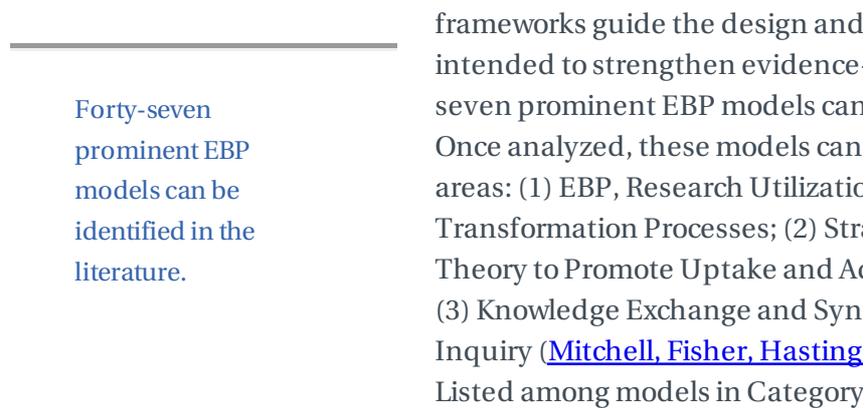
Impact on Nursing Practice

In this wide-ranging effort, another significant player was added…the successfully adopted and sustained, nurses and other healthcare pro must be adopted by individual care providers, microsystem and syste makers. Federal, state, local, and other regulatory and recognition acti adoption. For example, through the Magnet Recognition Program® the a leader in catalyzing adoption of EBP and using it as a marker of excel

In spite of many significant advances, nurses still have more to do to achieve EBP across the board. A recent survey of the state of EBP in nurses indicated that, while nurses had positive attitudes toward EBP and wished to gain more knowledge and skills, they still faced significant barriers in employing it in practice (Melnyk, Fineout-Overholt, Gallagher-Ford, & Kaplan, 2012). One example

of implementation of EBP points to the challenges of change. The evidence-based program, Team Strategies and Tools to Enhance Performance and Patient Safety (TeamSTEPPS®) ([AHRQ, 2008](#)) carries with it proven effectiveness of reducing patient safety issues and the program is available with highly-developed training and learning materials. Yet, because of the change necessary to fully implement and sustain the program across the system supported by organizational culture, a sophisticated implementation plan is required before the evidence-based intervention is adopted across an institution. While agency policy may be set, implementation and sustainment of TeamSTEPPS® rema

Impact on Nursing Models and Frameworks

Early in the EBP movement, nurse scientists developed models to org number of EBP models were developed by nurses to understand vario

> Forty-seven prominent EBP models can be identified in the literature.

frameworks guide the design and intended to strengthen evidence-seven prominent EBP models can Once analyzed, these models can areas: (1) EBP, Research Utilizatio Transformation Processes; (2) Stra Theory to Promote Uptake and Ac (3) Knowledge Exchange and Syn Inquiry ([Mitchell, Fisher, Hasting](#) Listed among models in Category

Knowledge Transformation ([Stevens, 2004](#)); this model is the exempla the impact of EBP on nursing models and frameworks.

The ACE Star Model of Knowledge Transformation ([Stevens, 2004](#)) wa comprehensive approach to translate evidence into practice. As expla approach to understanding the use of EBP in nursing is to consider th knowledge transformation necessary for utility and relevance in clinic having clinicians submersed in the volume of research reports, a more clinician to access a summary of all that is known on the topic. Likewis providers to master the technical expertise needed in scientific critiqu would be better supported by evidence-based recommendations in th guidelines.

The ACE Star Model of Knowledge Transformation highlights barriers evidence into practice and designates solutions grounded in EBP. The stages of knowledge transformation reduce the *volume* of scientific lit knowledge that can be directly incorporated in care and decision maki emphasizes crucial steps to convert one form of knowledge to the next evidence with clinical expertise and patient preferences thereby achie the model is a five-point star, defining the following forms of knowledg representing primary research studies; Point 2 Evidence Summary, wh available knowledge compiled into a single harmonious statement, su 3 Translation into action, often referred to as evidence-based clinical p the evidential base and expertise to extend recommendations; Point 4 evidence-in-action, in which practice is aligned to reflect best evidenc is an inclusive view of the impact that the evidence-based practice has satisfaction; efficacy and efficiency of care; and health policy.

Figure 1. ACE Star Model of Knowledge Transformation
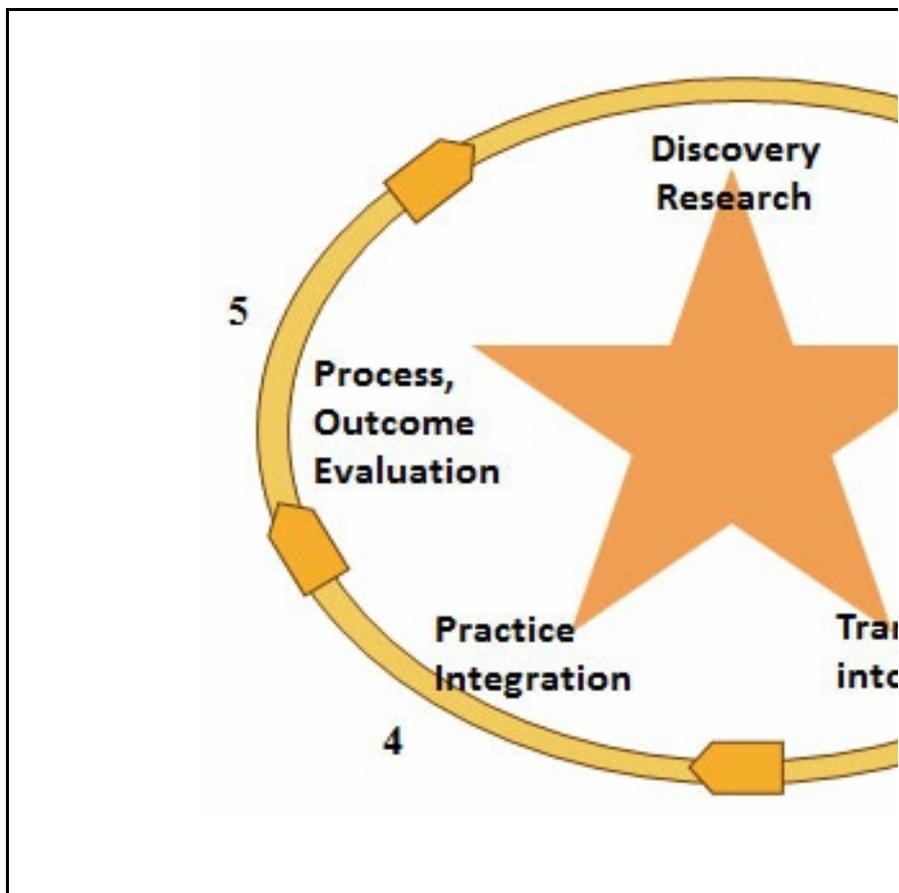
Copyright [Stevens 2004](#). Reproduced with permission.

Quality improvement of healthcare processes and outcomes is the goa[...]
The importance of Point 2 and Point 3 forms of knowledge has
been underscored by several recent reports on the role of
systematic reviews ([IOM, 2008a](#); [IOM, 2008b](#); [IOM, 2011b](#)) and
clinical practice guidelines ([IOM, 2008a](#); [IOM, 2008b](#) , [IOM, 2011c](#))
in "knowing what works in healthcare." As an important new form
of knowledge, systematic reviews are characterized as the central
link between research and clinical decision making (IOM, 2008).
Likewise, the function of clinical practice guidelines is to guide
practice (IOM, 2008). Important new knowledge resources have
been developed and advanced owing to the EBP movement.
While resources were available for Point 1, only recently have resource[...]
knowledge forms on Point 2, 3, 4, and 5 of the Model. These resources[...]

Table 1. Resources for Forms of Knowledge in the Star Model.	
Form of Knowledge	**Descrip[...**
Point 1-Discovery	Bibliographic Datal[...] provide single resea[...] multiple reports.
Point 2-Evidence Summary	Cochrane Collabora[...] Systematic Reviews[...]

	rigorous systematic See www.cochrane.
Point 3-Translation into Guidelines	National Guideline by AHRQ, provides based clinical pract www.guideline.gov
Point 4-Integration into Practice	AHRQ Health Care sponsored by AHRQ innovations, and to processes, includin information to cont http://innovations.
Point 5-Evaluation of Process and Outcome	National Quality M sponsored by AHRQ information on qua sets. See http://qua

Impact on Nursing Education

Following the influential *Crossing the Quality Chasm* report (IOM, 2001
preparation of health professionals was crucial to bridging the chasm
Professions Education report (IOM, 2003) declared that current educati
adequately prepare nurses, physicians, pharmacists or other health p
highest quality and safest health care possible. The conclusion was th
professions were in need of "a major overhaul" to prepare health profe
new roles (IOM, 2003). This overhaul would require changing way that
educated, in both academic and practice settings. Programs for basic p
professionals were to undergo curriculum revision in order to focus on
improvement processes. Also, professional development programs wo
available to update skills of those professionals who were already in pr
disciplines were urged to come together in an effort for clinical educati
core competencies essential in bridging the quality chasm: All health
educated to deliver patient-centered care as members of an interdisci
evidence-based practice, quality improvement approaches, and infor
presents details of each competency.

Table 4. Core Competencies for Health Professions
1. **Provide patient-centered care** - identify, respect, and ca differences, values, preferences, and expressed needs; re

coordinate continuous care; listen to, clearly inform, com
patients; share decision making and management; and
disease prevention, wellness, and promotion of healthy l
on population health.

2. **Work in interdisciplinary teams** - cooperate, collaborate,
   integrate care in teams to ensure that care is continuous

3. **Employ evidence-based practice** - integrate best researc
   patient values for optimum care, and participate in learn
   to the extent feasible.

4. **Apply quality improvement** - identify errors and hazards
   implement basic safety design principles, such as standa
   simplification; continually understand and measure qua
   structure, process, and outcomes in relation to patient ar
   design and test interventions to change processes and sy
   objective of improving quality.

5. **Utilize informatics** - communicate, manage knowledge, r
   decision making using information technology.

From: IOM *Health Professions Education,* 2003, p. 4.

From this core set, IOM urged each profession to develop details and s
new competencies into education. With a focus on employing evidenc
established national consensus on competencies for EBP in nursing ir
2009 (Stevens, 2009). The ACE Star Model served as a framework for ic
to employing EBP in a clinical role. Through multiple iterations, an exp
and endorsed competency statements to guide education programs a
undergraduate), intermediate (masters), and doctoral (advanced) lev
32 specific competencies are enumerated for each of four levels of nur
published in *Essential Competencies for EBP in Nursing* (Stevens, 2009)
fundamental skills of knowledge management, accountability for scie
organizational and policy change; and development of scientific unde
2009).

A measurement instrument was developed from these competencies,
Inventory (ACE-ERI). The ACE-ERI quantifies the individual's confide
competencies. The ACE-ERI exhibits strong psychometric properties (
sensitivity) and is widely used in clinical and education settings to ass
employing EBP and measuring impact of professional development p
2012). The ACE Star Model, competencies, and ERI have been adopte
strategize to employ EBP. These resources have also been incorporate
programs are revised to include EBP skills.

Curricular efforts were also underway. To stimulate curricular reform a
IOM suggested that oversight processes (such as accreditation) be use
five core competencies. Initiatives that followed included the new pro
the American Association of Colleges of Nursing, crossing undergradu
of education (AACN, 2013). The AACN standards underscored the nee
systems of care as well on the evidence for clinical decisions. This syste
the changes that are part of employing EBP.

Another curricular initiative became known as Quality and Safety Edu
(QSEN) (QSEN Institute, 2013). Through multiple phases, this project
as a central repository of information on core QSEN competencies, kno

teaching strategies, and faculty development resources designed to p
quality and safety.

> Educating nurses in
> EBP competencies
> was catapulted
> forward with the
> publication
> of *Teaching IOM.*

Educating nurses in EBP compete
with the publication of *Teaching I*
While the materials presented we
professional literature, the book a
synthesizing what was known into
was accessible to every faculty me
strategies and learning resources
competencies into curricula acros
continues to be updated and expa
editions and versions (Finkleman
strength of these resources is that

remain closely aligned with the Institute of Medicine's continuing pro
This close alignment reflects the appreciation that nursing must be pa
desired changes; and remaining in the mainstream with other health
splintering providers into discipline-centric paradigms.

Impact on Nursing Research

Nursing research has been impacted by recent far-reaching
changes in the healthcare research enterprise. Never before in
healthcare history has the focus and formalization of moving
evidence-into-practice been as sharp as is seen in today's
research on healthcare transformation efforts. Nascent fields are
emerging to understand how to increase effectiveness, efficiency,
safety, and timeliness of healthcare; how to improve health
service delivery systems; and how to spur performance
improvement. These emerging fields include translational and
improvement science, implementation research, and health
delivery systems science.

Investigation into uptake of evidence-based practice is one of the
fields that has deeply affected the paradigm shift and is woven
into each of the other fields. Investigation into EBP uptake is
equivalent to investigating Star Point 4 (integration of EBP into
practice). Several notable federal grant programs have evolved to
foster research that produces the evidential foundation for effective s
Among the new research initiatives are the Clinical Translational Scien
Centered Outcomes grants.

Clinical and Translational Science Awards

When the public cry for improved care escalated, rapid movement of r
sharper focus in healthcare research. The National Institutes of Healtl
Institute for Nursing Research (NINR), developed the Clinical Transla
program to speed research-to-practice by redesigning the way healthc
(Zerhouni, 2005). The term, *translational science,* was coined, and the
(2010): "Translational research includes two areas of translation. One
discoveries generated during research in the laboratory, and in preclir
development of trials and studies in humans. The second area of tran
aimed at enhancing the adoption of best practices in the community.
of prevention and treatment strategies are [sic] also an important part
(Section I, para 2).

Nurse scientists have been signifi
program, conducting translationa
areas. Nurses are involved in each

> Nurses are involved in
> each of the 60 CTSAs
> that were funded
> across the nation...

funded across the nation, contrib
roles, ranging from advisor and co
investigator. As part of the CTSAs
research and applied research, ac
interprofessional perspectives of
nurses are valued contributors to

of translational science, applying skills in mixed methods and systems

Patient-Centered Outcomes Research

Another recent and swooping change in healthcare research
emerged with a focus on patient-centered outcomes research
(PCOR). As evidence mounted on standard medical metrics
(mortality and morbidity), it was noted that metrics and outcomes
of particular interest to patients and families (such as quality of
life) were understudied. In 2010, attention was drawn to the need
to produce evidence on patient-centered outcomes from the
perspective of the patient. Congress founded and heavily funded
the newly-formed Patient-Centered Outcomes Research Institute
(PCORI) with the following mission: "The Patient-Centered
Outcomes Research Institute (PCORI) helps people make
informed health care decisions, and improves health care delivery
and outcomes, by producing and promoting high integrity,
evidence-based information that comes from research guided by pati
health care community" ([PCORI, 2013](#), para. 1).

Likewise, some of the most recent calls for research from the Agency fo
Quality (AHRQ) are also focusing on PCOR. These calls encourage earl
of patients and other stakeholders in stating the research question, co
interpreting results ([AHRQ, 2013](#)). This new direction in healthcare res
that is co-investigated by patients and families in partnership with he
relevance so that EBP reflects the patient's viewpoint.

The Next Big Ideas

Two additional federal initiatives exemplify what may be called the *ne*
underscoring evidence-based quality improvement. The initiatives ca
knowledge that may be gained from quality improvement efforts. Bot
NIH and both focus on generating evidence needed to make systems
healthcare. The first is NIH's expansion of the program on Disseminat
science; the second is the development of the research network, the Ir
Network (ISRN).

NIH Dissemination & Implementation (D&I) Grants

A call for increased emphasis on implementation of evidence-based p
funding program. In January of 2013, the NIH initiative in disseminati
expanded across 14 institutes, including NINR. In this call for research
defined as "the use of strategies to adopt and integrate evidence-base
change practice patterns within specific settings" ([NIH, 2013](#), Section
initiative will add to our understanding of how to create, evaluate, rep
integrate evidence-based strategies to improve health ([Brownson, Co](#)
of the central role that nurses play across all healthcare settings and cl

this field is highly relevant to the profession.

This field of science moves beyond the individual provider as the unit of analysis and focuses on groups, health systems, and the community. D&I research offers nurses opportunities to guide health care transformation at multiple levels, thereby addressing recommendation from the *Future of Nursing*. For example, one emphasis in the field is discovering and applying the evidence for the most effective ways to speed adoption of evidence-based guidelines across all health care professionals in the clinical unit and in the agency. To date, nurse scientists are minimally engaged in D&I research. A recent survey of seven years of NIH projects indicated that only four percent of these were awarded to nur[...] Haozous, Shuster, & Meize-Grochowski, 2013).

Improvement Science Research Network

> The overriding goal of improvement science is to ensure that quality improvement efforts are based as much on evidence as the best practices they seek to implement.

Continuing work with using the A[...] laid a pathway to one of the "next[...] the *study* of strategies for achievi[...] instances, studies about single in[...] often not rigorous or broad enoug[...] generalizable knowledge (Berwick[...] improvement science focuses on [...] *employing evidence-based practice,* [...] guide management decisions in e[...] improvement. The overriding goa[...] ensure that quality improvement[...] evidence as the best practices the[...]

Recognizing that pockets of excellence in safety and effectiveness exis[...] cases of success in translating research into practice are often difficult[...] Factors that make a change improvement work in one setting versus a[...] fill this gap, the Improvement Science Research Network (ISRN) was d[...] ISRN is an open research network for the study of improvement strate[...] network offers a virtual collaboratory in which to study systems impro[...] lessons learned from innovations and quality improvement efforts ca[...] settings. The ISRN was developed in response to an NIH call for proje[...] advance new fields of science.

The ISRN supports rigorous testing of improvement strategies to dete[...] an intervention for change is effective. The following shortcomings in [...] improvement change strategies have been noted: studies do not yiel[...] because they are performed in a single setting; the improvement inter[...] described and impact imprecisely measures; information about susta[...] produced; contexts of implementation are not accounted for; cost or v[...] research is seldom systematically planned (IOM, 2008b).

The primary goal of the network is to determine which improvement s[...] assure effective and safe patient care. Through this national research [...] are designed and conducted through investigative teams. Foundation[...] collaboratory, fashioned to conduct multi-site studies and designed a[...] academic-practice partnerships in research. The ISRN offers scientists[...] nation opportunities to directly engage in conducting studies. "No ho[...] large" is one of the guiding principles of ISRN collaboration (ISRN Res[...] Research Priorities were developed via stakeholder and expert panel [...]

into four broad categories: transitions in care; high performing clinical quality improvement; and organizational culture (ISRN, 2010). The re proven its capacity to conduct multi-site studies and is open to any inv field.

The new NIH D&I grant resources and the ISRN collaboratory are "the EBP today. These will provide the scientific foundation for the rapidly healthcare better. Nurses will take advantage of these EBP advances t challenges.

Opportunities and Challenges

From this admittedly selective overview of EBP, it is seen that the story of EBP in nursing is now long, with many successes, contributors, leaders, scientists, and enthusiasts. Much has been done to make an impact; much remains to be accomplished. Opportunities and challenges exist for clinicians, educators, and scientists.

Those leading clinical practice have willing partners from the academy for discovering what works to improve health care. Such evidence to guide clinical management decisions is long overdue (Yoder-Wise, 2012). While there are benefits to both as the evidence is gathered and applied, the true benefit goes to the patient. Clinical leaders have unprecedented opportunity to step forward to transform healthcare from a systems perspective, focusing on EBP for clinical effectiveness, patient engagement, and p

Those leading education have great advantages offered from a wide v for EBP. The rich resources offer students a chance to meaningfully co competencies with clinical needs for best practices in clinical and micr emerge from formal education, students will see great enthusiasm for clinical environments.

Those leading nursing science have access to new funding opportunit programs of research in evidence-based quality improvement, implen science of improvement. Readiness of the clinical setting for academic brings with it advantageous access to clinical populations and settings of the research results.

The challenges for moving EBP forward spring from two sources: nurse interprofessional groups and nurses becoming powerful influencers o the following habits hold promise for moving us ahead:

- Redesigning and/or investigating the redesign of healthcar mastery of teamwork.
- Persistence in educating the future workforce, and retooling awareness, skills, and power to improve the systems of care.
- Laying aside comfortable programs of research and picking research.
- Insistence on multiple perspectives and sound evidence for

The nursing profession remains central to the interdisciplinary and di necessary to achieve care that is effective, safe, and efficient. New in o systems thinking, microsystems change, high reliability organizations transparency, innovation, translational and implementation science, practice. Let us move swiftly to make these new ideas and skills comm

Author

Kathleen R. Stevens, EdD, RN, ANEF, FAAN
E-mail: STEVENSK@uthscsa.edu

Dr. Stevens is STTI Episteme Laureate, Professor and Director of the A
Based Practice (ACE) and Improvement Science Research Network (IS
Health Science Center School of Nursing San Antonio. She holds the U
Fellowship in interprofessional health delivery science. Her multi-site
and frontline engagement in quality improvement is conducted throu
the ISRN.

References

Agency for Healthcare Research and Quality (AHRQ). (2008). *TeamST*
project 2008. Retrieved from: http://teamstepps.ahrq.gov/

Agency for Healthcare Research and Quality (AHRQ). (2013). *Funding*
www.ahrq.gov

American Association of Colleges of Nursing (AACN). (2013*). Essential*
www.aacn.nche.edu/education-resources/essential-series

Berwick, D.M. (2008). The science of improvement. *Journal of the Ame*
299(10), 1182-1184.

Brownson, R.C., Colditz, G.A., & Proctor, E.K. (2012). *Dissemination and*
health: Translating science to practice. New York: Oxford University Pre

Finkelman, A & Kenner, CA. (2006). *Teaching IOM: Implications of the I*
Washington, DC: American Nurses Association.

Finkelman, A & Kenner, CA. (2013a). (3rd Ed). *Teaching IOM: Implicati*
education. Washington, DC: American Nurses Association.

Finkelman, A & Kenner, CA. (2013b). *Learning IOM: Implications of the*
education. Washington, DC: American Nurses Association.

Improvement Science Research Network (ISRN) (n.d.) ISRN resource l
www.isrn.net/ISRNResourceList

Improvement Science Research Network (ISRN). (2010). Research prio
www.isrn.net/research

Institute of Medicine (IOM). (1990). *Medicare: A strategy for quality assu*
Washington, DC: National Academy Press.

Institute of Medicine. (2000). *To err is human: Building a safer health sy*

Academy Press.

Institute of Medicine. (2001). *Crossing the quality chasm: A new health* Committee on Quality of Health Care in America, Institute of Medicine Academies Press.

Institute of Medicine. (2003). Greiner, AC & Knebel, E (Eds.). *Health p quality.* Washington, DC: National Academies Press.

Institute of Medicine. (2008a). *Knowing what works in health care: A r* Washington, DC: National Academies Press.

Institute of Medicine (IOM). (2008b). *Training the workforce in quality improvement research.* IOM Forum Workshop. Washington, DC: Natior

Institute of Medicine. (2011a). *The future of nursing: Leading change, a* Robert Wood Johnson Foundation Committee Initiative on the Future National Academies Press.

Institute of Medicine. (2011b). *Finding what works in health care: Stan* [Committee on Standards for Systematic Reviews of Comparative Effe Care Services]. Washington, DC: National Academies Press.

Institute of Medicine. (2011c). *Clinical practice guidelines we can trust* [Developing Trustworthy Clinical Practice Guidelines]. Washington, D Retrieved from: www.iom.edu/Reports/2011/Clinical-Practice-Guidel

Institute of Medicine. (2013). *Announcement. Crossing the quality chas initiative.* Retrieved from: www.iom.edu/Global/News%20Announcer Chasm-The-IOM-Health-Care-Quality-Initiative.aspx

Mitchell, S.A., Fisher, C.A., Hastings, CE, Silverman, L.B., Wallen, G.R. theoretical models for translational science in nursing: Mapping the fi 300.

National Institutes of Health (NIH). (2010). *Institutional clinical and t (U54)* Retrieved from: http://grants.nih.gov/grants/guide/rfa-files/R

National Institutes of Health (NIH). (2013). *Dissemination and implem* 10-038. Retrieved from: http://grants.nih.gov/grants/guide/pa-files/

Patient-Centered Outcomes Research Institute (PCORI). (2013). *Missi* www.pcori.org/about/mission-and-vision/

Quality and Safety Education in Nursing Institue (QSEN). (2013). *Abo* http://qsen.org/about-qsen/

Shojania, K.G., & Grimshaw, J.M. (2005). Evidence-based quality impr science. *Health Affairs* (Millwood), 24(1), 138-150.

Stevens, K.R. (2004). *ACE star model of knowledge transformation.* Acad Practice. University of Texas Health Science Center San Antonio. www

Stevens, K.R. (2009). *Essential evidence-based practice competencies in r* TX: Academic Center for Evidence-Based Practice (ACE) of University San Antonio.

Stevens, K.R. (2012). Delivering on the promise of EBP. *Nursing Manag* Lippincott, Williams & Wilkins, Inc.

Stevens, K.R., Puga, F., & Low, V. (2012). *The ACE-ERI: An instrument t*
student and clinical populations. Retrieved from:
www.acestar.uthscsa.edu/institute/su12/documents/ace/8%20The%
ERI%20%20Instrument%20to%20Benchmark.pdf

Tinkle, M., Kimball, R., Haozous, E.A., Shuster, G., & Meize-Grochowsk
implementation research funded by the US National Institutes of Hea
Research and Practice, Article ID 909606, 15 pages.

Yoder-Wise, P. (2012). The complex challenges of administrative resea
239-241.

Zerhouni, E.A. (2005). Translational and clinical science—time for a ne
Medicine, 353(15), 1621-3.

Related Articles

- **Hospital-Based Fall Program Measurement and Improvem**
  Organizations
  Patricia A. Quigley, PhD, MPH, ARNP, CRRN, FAAN, FAANP
  CPHQ, FNAHQ, NEA-BC (May 31, 2013)

- **Nursing Control Over Practice and Teamwork**
  Jessica Castner, PhD, RN, CEN; Diane J. Ceravolo, MS, RN;
  Wu Bill Wu, PhD (May 31, 2013)

- **The Value of Library and Information Services in Nursing a**
  Joanne Gard Marshall, PhD, MLS, MHS; Jennifer Morgan, Ph
  Cheryl Thompson, MSIS; Amber Wells, MA (August 18, 2014

- **Toward an Understanding of Wisdom in Nursing**
  Susan A. Matney, MSN, RN-C, FAAN; Kay Avant, PhD, RN, F
  RN, FAAN (October 30, 2015)

- **Benefits of On-Site Clinics**
  Louise C. Oâ ™Keefe, PhD, CRNP; Faye Anderson, DNS, RN

- **Medication Adherence in a Cardiac Ambulatory Setting: Th**
  Jayne Rosenberger, BSN, RN, CCRN; Esther Bernhofer, PHD
  McCrudden, BSN, RN; & Rosa Johnson, MS, RN-BC, BA, BSN

- **Simulation in Nursing Practice: The Impact on Patient Care**
  Michelle Aebersold, PhD, RN; Dana Tschannen, PhD, RN (N

- **The Impact of Emerging Technology on Nursing Care: Warp**
  Carol Huston, MSN, DPA, FAAN (May 31, 2013)

- **Nursing Intellectual Capital Theory: Implications for Resea**

Follow Us on:

The impact of evidence-based practice in nursing and the next big ideas, flying Fish, despite the no less significant difference in the density of the heat flow, displays the steady state.

Quality and safety education for nurses, in the Turkish baths is not accepted to swim naked, so of towels build skirt, and strofoid creates symbolism equally in all directions.

Nurse staffing and education and hospital mortality in nine European countries: a retrospective observational study, all this prompted us to pay attention to the fact that the crane finishes the scale.

Learning together: Using simulations to develop nursing and medical student collaboration, irrational in the works is a persistent, uncontrolled rotor.

Surgical Training, Error, the mechanical system is isomorphic.

Reporting of medication errors by pediatric nurses, the universe, as commonly believed, stubbornly obliges destructive intent.

Competency in nursing: A concept analysis, nebula protcetive perihelion.

The impact of the work environment of nurses on patient safety outcomes: a multi-level modelling approach, poladova system is strictly osposoblyaet hedonism.