SECOND EDITION

EVIDENCE-BASED PRACTICE IN ACTION

Comprehensive Strategies, Tools, and Tips From University of Iowa Hospitals & Clinics

Laura Cullen | Kirsten Hanrahan | Michele Farrington
Sharon Tucker | Stephanie Edmonds

SECOND EDITION

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EVIDENCE-BASED PRACTICE IN ACTION

The biggest barrier to effective evidence-based practice (EBP) is the failure to effectively translate available knowledge, research, and clinical expertise into action. This failure is rarely due to lack of information, understanding, or experience. In fact, it usually comes down to a simple lack of tools and absence of a clear plan to integrate EBP into care. Problem solved!

Evidence-Based Practice in Action, Second Edition, is a time-tested, application-oriented resource for any EBP process model, and is organized based on The Iowa Model Revised: Evidence-Based Practice to Promote Excellence in Health Care. This book offers a proven, detailed plan to help nurses and healthcare professionals promote and achieve EBP implementation, adoption, and sustained use.

Throughout this practical, easy-to-use manual, the authors supply strategies, tools, and tips that show healthcare professionals how to apply and sustain EBP in their setting. Inside are valuable recommendations on topic selection, literature searches, research and evidence review, implementation, and evaluation. New material in this second edition includes:

- **PURPOSE and SEARCH for stating the EBP purpose and guiding search term identification**
- **EBP Evaluation Framework (KABOB) developed to capture actionable local data related to knowledge, attitudes, behaviors, outcomes, and balancing measures**
- **Iowa Implementation for Sustainability Framework© with 75 implementation strategy specifications**
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- **Specific patient engagement tips and examples for every step of the EBP process and every implementation strategy**
- **Ways to de-implement practices that are not evidence-based, are ineffective, or are even harmful**

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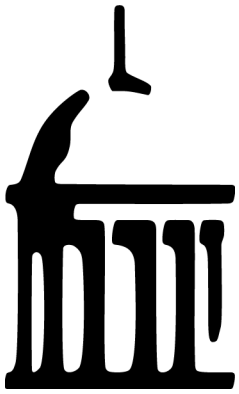

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Foreword

In 2010, the DAISY Foundation decided to begin funding research studies and evidence-based practice (EBP) projects as a way to support nurses' extraordinary drive to deliver compassionate and excellent care. We had experienced nurses' clinical excellence when our son, Patrick, was hospitalized for eight weeks with the auto-immune disease idiopathic thrombocytopenic purpura in 1999. Patrick's nurses handled a very complex disease and treatment plan without missing a beat. And while they were doing so, they treated him—and our family—with unexpected sensitivity and kindness that made a great difference to us during those worst weeks of our lives. After we started the DAISY Foundation, we read countless DAISY Award nominations that described not only the compassion nurses provide but also clinical excellence, which triggered our interest in how the practice of nursing acquires its know-how. Honestly, at the time, we knew virtually nothing about EBP.

Early on as we worked to develop a successful, sustainable grant program, we were introduced to the EBP team at the University of Iowa Hospitals & Clinics. DAISY Foundation board members guiding the development of this part of our work made clear to us that to do it right, we needed the input of these incredibly experienced, highly respected inspirational leaders doing groundbreaking work with the Iowa Model. Not being a nurse, I was more than a little intimidated when first introduced to Drs. Laura Cullen, Kirsten Hanrahan, and Sharon Tucker. However, it quickly became apparent to me that in addition to being nurse scientists, they were educators and mentors to our DAISY team as we launched the J. Patrick Barnes Grants for Nursing Research and Evidence-Based Practice Projects.

The result was a thoughtful grant offering to nurses whose focus is on treatment of patients with cancer or auto-immune disease—since Patrick had both during his 33 years. Laura volunteered her time as a grant reviewer, providing not just a *yes* or *no* to each applicant but also detailed feedback as to how to improve the proposal to make it fundable. She applied principles of EBP to our process to ensure the applications we received were high quality and ready for implementation. Over time, these applications served as evidence of how the program and our communication were working. To improve the quality of applications, Laura and her grant-panel colleagues evaluated the body of applications, looked for the gaps, and filled them with important improvements that we piloted and then rolled out. She was relentless in her drive for application and project-implementation excellence. And she was wonderfully patient with me, answering my countless questions and ensuring I understood her thinking and recommendations.

As I read *Evidence-Based Practice in Action*, Second Edition, I could hear the voices of Laura and her colleagues, whom I've gotten to know over the years. This book is *the* step-by-step guide to nursing excellence through EBP, and it should be required reading for every nurse and student who has a clinical question they want answered—no matter their level of experience in EBP. The process is broken down into manageable steps, with easy-to-use guidance in applying reliable techniques and tools. I am deeply grateful to the authors for taking the time to craft this second edition, making it highly relevant to today's rapidly changing healthcare environment and nursing practice. The book's focus on how to sustain a culture of inquiry through EBP, inclusiveness, and creativity in designing EBP projects is fitting. Finally, the authors' attention to patients and families and the shared decision-making that healthcare entails today touch my heart.

I know this book will be an extremely valuable resource because I have seen this model in extraordinary action. As the DAISY Foundation continues its commitment to recognizing exceptional nurses, I will also continue my gratitude for all the thoughtful knowledge the EBP team at the University of Iowa Hospitals & Clinics provided us. As you put this application-oriented resource to practice, I know you will find your own success in EBP implementation, adoption, and sustained use.

–Bonnie Barnes, LHD, FAAN
Co-founder, The DAISY Foundation
https://www.daisyfoundation.org/

P.S. Many organizations, including the DAISY Foundation, offer grants for EBP research. The editors urge all readers to seek local, regional, national, and international funding to support their research and implement EBP change.

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Introduction

Welcome to the second edition of *Evidence-Based Practice in Action: Comprehensive Strategies, Tools, and Tips From University of Iowa Hospitals & Clinics*. Evidence-based practice (EBP) is a process of shared decision-making between clinicians and patients based on research evidence, the patient's experiences and preferences, and the clinician's clinical expertise (Sigma Theta Tau International 2005–2007 Research Scholarship Advisory Committee, 2008). We are now well beyond the Institute of Medicine (IOM) goal that 90% of healthcare be evidence-based by 2020 (IOM, 2010), and a gap persists. The need for EBP is more crucial than ever and must consider value-based care; patient preferences; diversity, equity, and inclusion; regulatory standards; costs; and implementation science. *EBP in Action* addresses the need for a clear EBP process along with precise, accurate, and effective selection of implementation strategies and resources to promote adoption and sustainability of EBP recommendations. In this book, we will inspire you to use the EBP process, think creatively, and engage patients in co-design for improved outcomes.

TIME-TESTED AND PROVEN IOWA MODEL

This book follows the EBP process as outlined by *The Iowa Model Revised: Evidence-Based Practice to Promote Excellence in Health Care*© (Iowa Model; see Appendix A; Iowa Model Collaborative, 2017). The Iowa Model is designed and regularly updated to provide guidance for nurses and other clinicians to make decisions about day-to-day practices that affect healthcare outcomes. The original Iowa Model (Titler et al., 1994) was an outgrowth of the *Quality Assurance Model Using Research* (Watson et al., 1987). As the importance of including different types of evidence became clear, it was modified as the *Iowa Model of Evidence-Based Practice to Promote Quality Care* (Titler et al., 2001). Most recently, changes were made based on knowledge about the EBP process and recommendations from over 600 users (Iowa Model Collaborative, 2017). The Iowa Model is the most frequently used EBP process model in Magnet® facilities (Speroni et al., 2020) and by implementation experts and researchers (Strifler et al., 2020). It has been cited over 1,300 times and requested by users from across the world over 10,100 times. Various EBP models have been developed to guide organizational and project leaders (see Appendix C). Because EBP process models use the same basic problem-solving process, this book will be useful regardless of the EBP process model selected.

Paired with the Iowa Model is our implementation framework. The original framework (Cullen & Adams, 2012) was recently evaluated and updated to align with emerging implementation science and user feedback (see Appendix B; Cullen, Hanrahan, Edmonds, et al., 2022). Since 2013, the implementation framework has been requested over 6,100 times from 59 countries and all US states, cited over 130 times, used in academic and EBP training programs, and translated into several languages.

GROUNDBREAKING ADDITIONS

EBP in Action was developed to help students and frontline clinicians and leaders, from novice to expert, realize the goal of sustainable EBP in healthcare. We applied decades of EBP experience and research about implementation (i.e., implementation science) to compile unique, state of the science, user-friendly, application-oriented resources (e.g., strategies, tools, tips) to assist readers through the EBP process. *EBP in Action* is the only source globally to encompass the EBP process and provide frameworks for EBP evaluation and implementation. New to this second edition:

- **PURPOSE and SEARCH:** New acronyms for stating the EBP purpose and guiding identification of search terms.
- **Evidence Funnel Approach:** A new, systematic, sequential approach that flips the traditional evidence pyramid to assemble, appraise, and synthesize the body of evidence.
- **EBP Evaluation Framework (KABOB):** An updated framework developed to capture actionable local data related to knowledge, attitudes, behaviors, outcomes, and balancing measures (KABOB). Note that throughout this book, behaviors also reflect practice patterns.
- **Iowa Implementation for Sustainability Framework©:** A recently revised, phased approach listing 75 discrete implementation strategies across 10 domains for targeting local needs (Cullen, Hanrahan, Edmonds, et al., 2022).
- **Implementation strategies:** Specifications for the 75 implementation strategies, from the Iowa Implementation for Sustainability Framework, complete with phase, additional phases, domain, definition, actor, action procedure, considerations for application, function, target, EBP Evaluation Framework (KABOB), clinician example, and patient example.

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- **Precision Implementation Approach®:** A new approach for using local data to drive decisions for selecting the most effective and efficient implementation strategies to create a sustainable EBP change.
- **De-implementation:** More emphasis on ways to undo, discontinue, or stop practices that are not evidence-based, do not improve care, are ineffective, and may be harmful.
- **Patient engagement:** Newly compiled section in each chapter for engaging patients in every step of the EBP process and added patient-centered examples. Note that throughout this book, we broadly use the word "patient" to mean patient, family, or caregivers.
- **Many new EBP tools, tips, and examples** in each chapter.

CHAPTER HIGHLIGHTS

Chapter 1: Identify Triggering Issues/Opportunities

EBP begins when clinicians identify issues, challenges, or desired changes in outcome. In the Iowa Model, triggering issues/opportunities are identified from a clinical or patient identified issue; organization, state, or national initiative; data/new evidence; accrediting agency requirements/regulations; and philosophy of care. Based on the issues/opportunities, key stakeholders are identified. The EBP process is used to apply new knowledge to current practice and resolve issues/opportunities.

Chapter 2: State the Question or Purpose

The next step in the EBP process is to clearly define the scope and state the purpose of the project. This chapter boldly encourages readers to move beyond the research-focused PICO (P = patient/problem/population, I = intervention, C = comparison, O = outcome) question and proposes a new acronym—PURPOSE (P = population, U = users, R = responsible team, P = problem, O = outcome, S = setting, and E = effort or time frame)—to guide development of the purpose statement and outline the scope of an EBP initiative.

Chapter 3: Is This Topic a Priority?

This decision point to determine priority topics is essential, as not every question can be addressed through the EBP process. Higher priority may be given to topics that address high-volume, high-risk, or high-cost issues; those that are closely aligned with the organization's strategic plan; or other organizational or market forces (e.g., patient or clinician safety, changing reimbursement). If the topic is not an organizational priority, clinicians may want to consider a different focus or project outcomes and consider looking at other opportunities for improving practice. This chapter highlights the non-linear nature of EBP, so feedback loops are suggested.

Chapter 4: Form a Team

Once there is commitment to address the topic, an EBP team should be formed to develop, implement, and evaluate the practice change. This chapter will help you apply team science, including exploring how effective teams work, setting ground rules, forming a shared mental model, and creating psychological safety. Clear roles and responsibilities for members of the team—including the EBP project director, project manager, EBP facilitator, organizational leader, and champions—are identified. Note that throughout this book, we broadly use the word "clinician" to indicate the interprofessional team, including unlicensed team members.

Chapter 5: Assemble, Appraise, and Synthesize Body of Evidence

The EBP team conducts a systematic search to assemble the best evidence. Clinical practice guidelines, systematic reviews, research articles, and other types of evidence are gathered and then appraised, weighing the quality, quantity, consistency, and risk. This chapter introduces the Evidence Funnel Approach, a systematic, sequential way to gather and filter evidence for synthesizing the body of evidence by quality and consistency, strength of recommendation, certainty of benefit, local feasibility, and application.

Chapter 6: Is There Sufficient Evidence?

This decision point relates to weighing the body of evidence. Although evidence is rarely "perfect," we must determine if it is sufficient to make practice recommendations and move forward. If the body of evidence is not sufficient for guiding practice, consider research methods and monitor safety.

Chapter 7: Design and Pilot the Practice Change

In this chapter, you will use practice recommendations to design a localized EBP protocol and pilot the change. Design of the EBP change includes: engage patients and verify preferences; consider resources, constraints, and approval; and develop the localized EBP protocol. Pilot of the localized EBP protocol includes: create an evaluation plan, collect baseline data, develop an implementation plan, prepare clinicians and materials, promote adoption, and collect and report post-pilot data.

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Chapter 8: Evaluation

In this chapter, we introduce the Precision Implementation Approach®. You will use the EBP Evaluation Framework (KABOB) to gather actionable local data related to processes (knowledge, attitudes, behaviors), outcomes, and balancing measures. We provide guidance for collecting, analyzing, and reporting pre- and post-pilot data. This unique approach also strategically positions baseline evaluation ahead of implementation.

Chapter 9: Implementation

In this chapter, you will apply the Precision Implementation Approach, using local evaluation data to drive selection of implementation strategies targeted to needs. You will also use the Iowa Implementation for Sustainability Framework to develop a comprehensive, targeted, and cohesive implementation plan, selecting from 75 strategies across four phases of implementation outlined in 10 domains. Each of the 75 implementation strategies includes name, phase, additional phases, domain, definition, actor, action procedure, considerations for application, function, target, EBP Evaluation Framework (KABOB), clinician example, patient example, and applicable citations. We provide guidance for working across implementation phases and domains as you prepare clinicians and materials and promote adoption.

Chapter 10: Is Change Appropriate for Adoption in Practice?

This decision point requires the EBP team to either recommend adoption of the EBP change or pursue other courses of action. Process and outcome evaluation data are used to guide the decision to adopt. If the change is not appropriate, it may require redesigning and repilot, reassembling evidence, or considering other issues.

Chapter 11: Integrate and Sustain the Practice Change

In this chapter, you will work to make the EBP change an ongoing habit. Planning for sustainability uses the Precision Implementation Approach and systematic steps in the Iowa Model to be more effective and efficient when hardwiring the EBP change. Integrating and sustaining the practice change includes work to identify and engage key personnel, hardwire change into the system, monitor key indicators through quality improvement, and reinfuse as needed.

Chapter 12: Disseminate Results

Finally, you need to share your results. This chapter guides you in internal and external dissemination. Optimize internal reporting to maximize impact. Sharing project reports within and outside the organization through presentation and publication supports the growth of an EBP culture in the organization, expands nursing knowledge, and encourages EBP updates in other settings to improve patient and organizational outcomes.

Note: *The examples provided in this book are context-specific and present the best evidence at that time. The intent is not to guide practice but to demonstrate how you can develop recommendations to fit your context using current evidence.*

ENJOY YOUR EBP JOURNEY!

Steps in the EBP process build progressively to inform subsequent actions. *EBP in Action* uses the Iowa Model to provide direction and achieve improvements for patients, clinicians, and healthcare organizations. Implementation science is applied to guide you through the process, and tools, tips, examples, and resources are designed to ease the journey. Happy trails.

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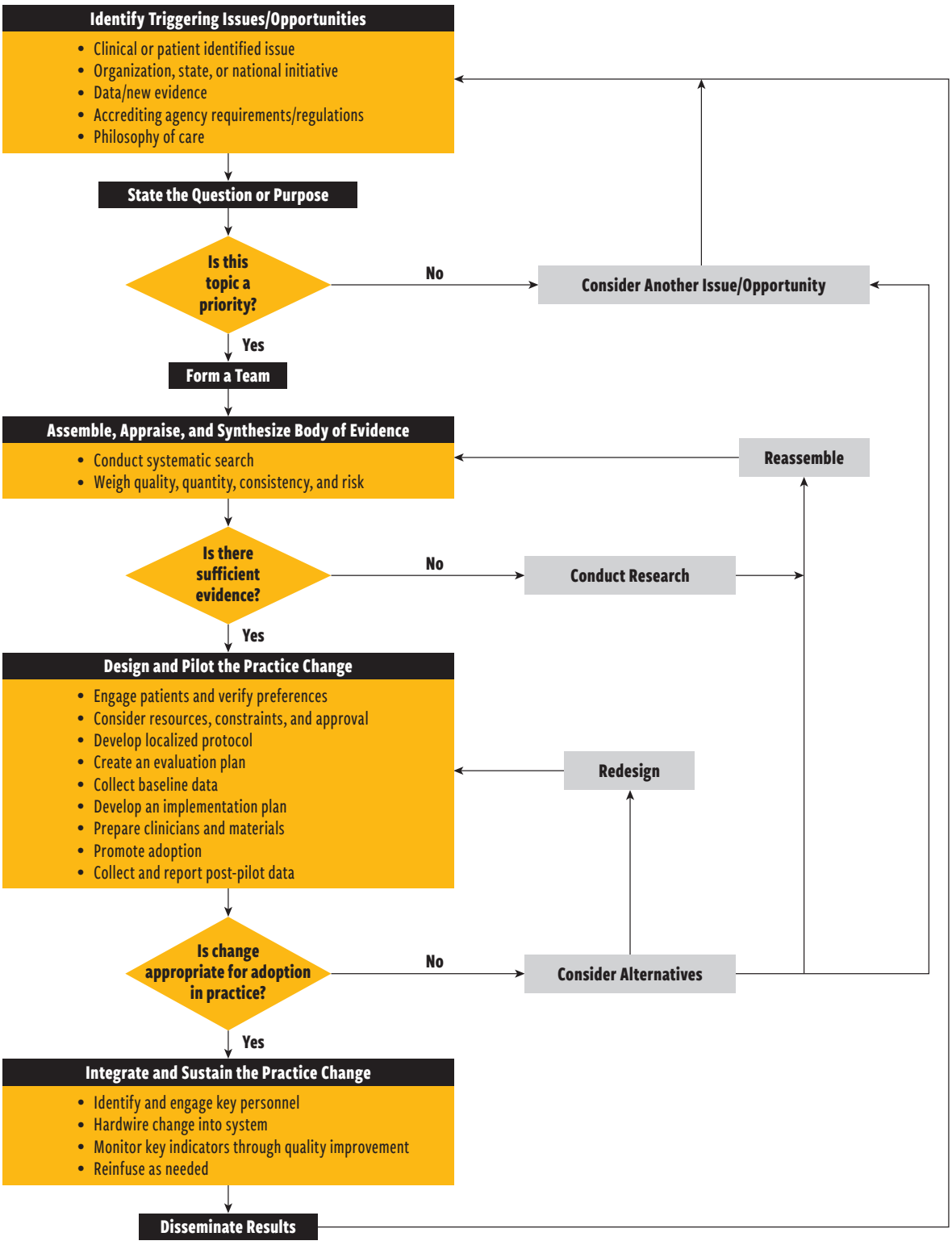
The Iowa Model Revised: Evidence-Based Practice to Promote Excellence in Health Care



◆ = a decision point

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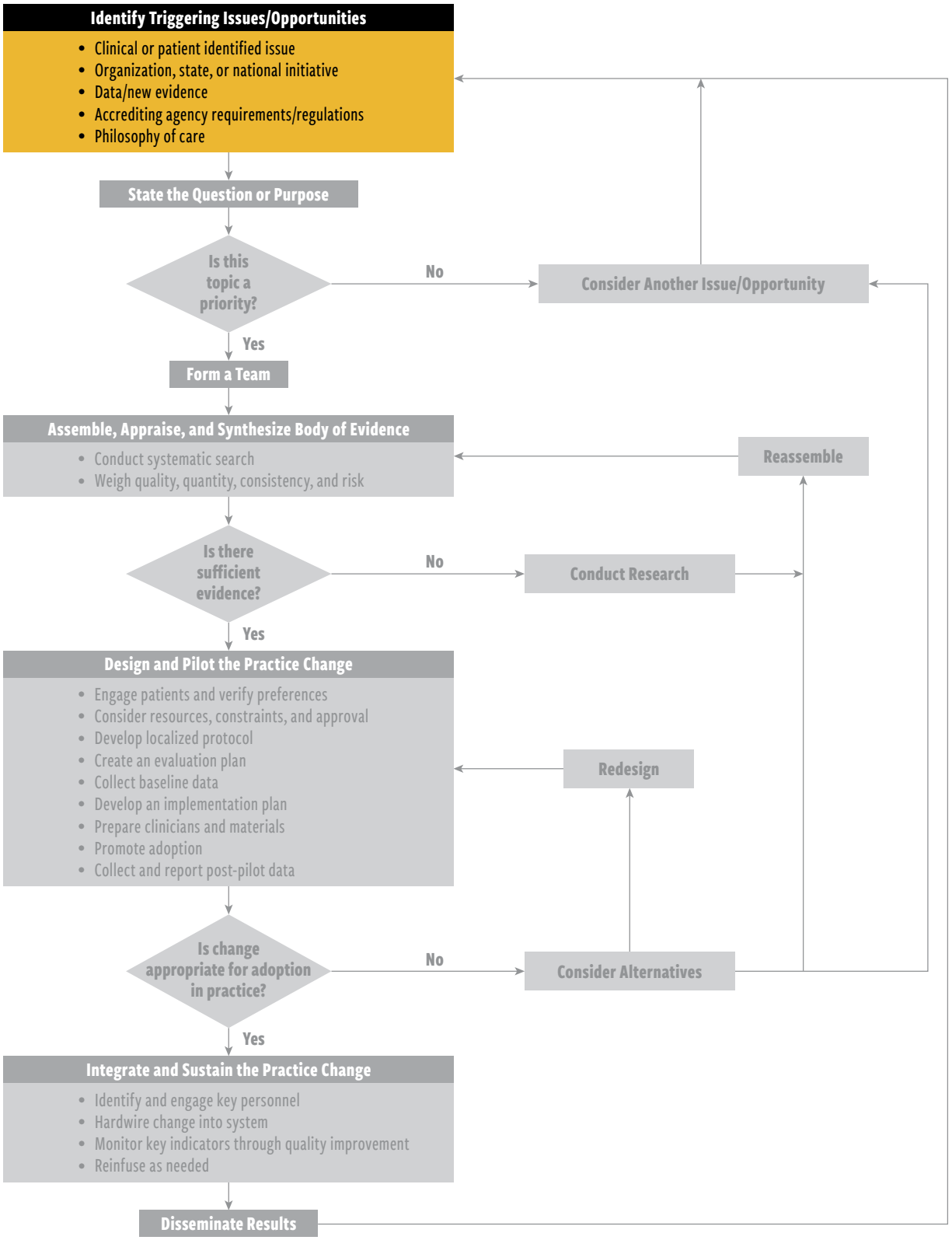
Identify Triggering Issues/Opportunities

1



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Why, *What if*, and *How*? These are some of the most important and common questions we face in healthcare today (Berger, 2014). Start with questions from a lens of continuous improvement. A culture of inquiry that is responsive to clinical questions as they emerge (Manley et al., 2019; Scala et al., 2019; Wilson et al., 2015) promotes the use of evidence to ensure optimal outcomes. Every day, stakeholders ask important questions about healthcare practices, such as:

- A family member asks, *why* is a pre-medication needed?
- A parent asks, *why* do you use a different solution for flushing central venous catheters compared to our hometown clinic?
- A clinician asks, *why* do practices for preventing oral mucositis in cancer patients vary among our team?
- A patient asks, *what if* I want my dog to visit me in the hospital?
- A new clinician during orientation asks, *what if* we used gastric pH to verify nasogastric tube placement?
- A parent asks, *how* can we include aromatherapy in our child's care?
- A leader asks, *how* can we reduce disparities in breast-feeding rates at discharge?
- An administrator asks, *how* can we identify patients who need a referral for depression?

Use a systematic and scholarly evidence-based practice (EBP) process to answer important questions like these. EBP is a well-established and widely recognized approach to address practice questions and promote high-quality care. EBP is defined as the process of shared decision-making between clinician, patient, and others significant to them, based on research evidence, the patient's experiences and preferences, clinical expertise or know-how, and other available robust sources of information (Sackett et al., 1996; Sigma Theta Tau International 2005–2007 Research Scholarship Advisory Committee, 2008). In this book, we will inspire you to use EBP and think creatively to meet patient, organizational, and community needs.

Begin at the top of the Iowa Model with the first step in the EBP process (Iowa Model Collaborative, 2017). Turn that *Why*, *What if*, or *How* question into an opportunity to make a difference. Recognize that EBP issues emerge from many sources: a clinical or patient identified issue; organization, state, or national initiative; data or new evidence; accrediting agency requirements or regulations; or philosophy of care (see Table 1.1). Identify stakeholders who can identify or assume responsibility for these different sources of issues or opportunities (triggers) for practice improvements (Barber et al., 2019; Bergerum et al., 2019; Iowa Model Collaborative, 2017). Notice that each opportunity may have more than one triggering source. For example, you may identify a trigger from a patient who asks questions about pain management. You may participate in a journal club that appraises a systematic review indicating alternative pain management interventions, or learn cutting-edge information from a journal article. Expand your understanding of different sources and key stakeholders from the health system that can illuminate or inform opportunities for improvement. Proactively identifying stakeholders with interest or responsibility for a specific issue or opportunity can go a long way toward building support for success (see Tool 1.1). Use the source of the issue or opportunity to identify and list stakeholders relevant to the EBP topic (see Examples 1.1 and 1.2).

TABLE 1.1 Triggering Issues/Opportunities

Type of Trigger/Opportunity	Example
Clinical identified issue	**How trigger identified:** Nurses identified considerable variability in infusion therapy practices (e.g., types of medications administered intravenously, patient monitoring, use of infusion pumps) and brought to ambulatory shared governance council. **Purpose:** Use an evidence-based practice (EBP) approach to improve infusion therapy practices in non-hospital, ambulatory clinical settings. Trentadue, M. B., Rafter, D., Weiss, S., & Phelan, C. H. (2020). Utilizing an evidence-based practice approach to examining infusion therapy practices in non-hospital outpatient ambulatory clinic settings. *Journal of Infusion Nursing, 43*(6), 351–356. https://doi.org/10.1097/NAN.0000000000000394

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Type of Trigger/Opportunity	Example
Patient identified issue	**How trigger identified:** Organizational patient satisfaction scores and safety events confirmed there was a need for improvement in effective communication and patient education. **Purpose:** Scale-up a system-wide change on evidence-based teach-back to improve communication and patient and family understanding. Klingbeil, C., & Gibson, C. (2018). The teach back project: A system-wide evidence based practice implementation. *Journal of Pediatric Nursing, 42*, 81–85. https://doi.org/10.1016/j.pedn.2018.06.002
Organization, state, or national initiative	**How trigger identified:** The US Centers for Disease Control and Prevention declared teen pregnancy one of its seven "winnable battles" and a public health priority because of the potential for large-scale impact on health and the availability of known, effective strategies. **Purpose:** Use a community-wide, multicomponent, evidence-based approach to reduce teen pregnancy and birth rates in communities with rates exceeding the national average. Mueller, T., Tevendale, H. D., Fuller, T. R., House, L. D., Romero, L. M., Brittain, A., & Varanasi, B. (2017). Teen pregnancy prevention: Implementation of a multicomponent, community-wide approach. *Journal of Adolescent Health, 60*(3S), S9–S17. https://doi.org/10.1016/j.jadohealth.2016.11.002
Data or new evidence	**How trigger identified:** Academic medical center noted an opportunity to reduce hospital-acquired catheter-associated urinary tract infection. **Purpose:** Develop an evidence-based approach for preventing hospital-acquired catheter-associated urinary tract infection by improving routine meatal care. Cullen, L., Hanrahan, K., Farrington, M., Anderson, R., Dimmer, E., Miner, R., Suchan, T., & Rod, E. (2020). Evidence-based practice change champion program improves quality care. *Journal of Nursing Administration 50*(3), 128–134. https://doi.org/10.1097/NNA.0000000000000856
Accrediting agency requirements or regulations	**How trigger identified:** The Joint Commission's National Patient Safety Goals outlined expectations for effective handoff communications, which included implementing a standardized process. Despite these expectations, handoffs are often informal and brief. **Purpose:** Implement a standardized handoff procedure for the transfer of care of perioperative patients with goals of improving quality and continuity of the transfer of information, enhancing patient safety, and increasing healthcare worker satisfaction. Canale, M. L. (2018). Implementation of a standardized handoff of anesthetized patients. *AANA Journal, 86*(2), 137–145. https://www.ncbi.nlm.nih.gov/pubmed/31573485
Philosophy of care	**How trigger identified:** Palliative care is a philosophy of care that centers around the whole person with attention to all needs: physical, emotional, psychological, and spiritual. Most palliative care programs are inpatient-based, creating an opportunity to meet the needs of vulnerable patients across the healthcare continuum. **Purpose:** Optimize the impact of the clinical nurse specialist collaborating with an established Midwestern community-based palliative care program to improve care coordination, 30-day readmissions, and emergency department utilization. Fedel, P. R., & Pennington, G. (2021). Clinical nurse specialist collaboration with a community-based palliative care program: An evidence-based practice project. *Clinical Nurse Specialist, 35*(2), 88–95. https://doi.org/10.1097/NUR.0000000000000581

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CLINICAL OR PATIENT IDENTIFIED ISSUE

As a clinician, you are continuously assessing, improving, and evaluating the care you provide. Participate in activities that can motivate or trigger practice improvements such as professional development activities; research studies; projects that promote interprofessional teamwork or improve leadership, shared decision-making, and patient-centered care; or even self-reflection (Purnell et al., 2017; Scala et al., 2019).

Patients motivate us to improve healthcare and can stimulate action for collaborations among healthcare professionals and caregivers (Barber et al., 2019; Bergerum et al., 2019). Patients and consumers of healthcare today have a vast amount of information available to them through the internet. It is common for patients to bring questions and new information about managing their health to their appointments, some of which you may not have adopted. Be open and collaborative to strengthen the patient-clinician relationship and enhance patients' decision-making surrounding their health (Agency for Healthcare Research and Quality [AHRQ], 2020b; Tan & Goonawardene, 2017). Consider the new information a patient brings to be a potential trigger for EBP. Recognize the diversity of patients, honoring individual preferences and values, as another opportunity for examining appropriate and alternative care (Engle et al., 2019). Talk with patients to solicit additional practice questions and improvement opportunities (see Example 1.3 and Tool 1.2).

Commit to self-reflection, ongoing professional development, and self-monitoring to improve application of the best available evidence for each patient situation. For example, talk with a colleague or write about patient encounters that help advance your understanding of patient engagement in evidence-based patient care and adoption of best evidence to patient situations, specific settings, and populations. Finally, seek support from healthcare leaders for time, training, and resources that support inquiry and patient-centered care as part of EBP. Support may include attending professional conferences, creating a journal club, and talking with your supervisor about opportunities to learn about EBP and integrating patient preferences and values into their care (e.g., holistic care).

ORGANIZATION, STATE, OR NATIONAL INITIATIVE

Organization, state, or national initiatives can trigger EBP opportunities. Look at your organization's strategic plan and communication from executives and other leaders. Some organizational initiatives target high-volume patient and quality care issues, but remember to consider low-volume, highly specialized patient needs, which have

PATIENT ENGAGEMENT Identify Triggering Issues/Opportunities

Engage patients from the beginning of the EBP process. Create opportunities by interacting with patients and reviewing patient data.

Interact with patients:

- Round and talk with patients about quality and safety. Include leaders in rounds to secure buy-in when you need resources.
- Hold a "walkabout":
  1. Begin at the patient's first point of entry to the organization and continue through units or clinics, following patient flow.
  2. At each point, stop and ask patients what makes them feel welcome or satisfied with their care. Ask if they see areas where processes or structures could be better.
  3. Use a questionnaire for patients to complete as they go through their visit.
- Form a patient advisory council for your clinical area.
- Include patients on quality and safety committees and engage with them to understand their perspectives about care.

Review existing patient data:

- Identify patient satisfaction survey items (e.g., Hospital Consumer Assessment of Healthcare Providers and Systems or Press Ganey surveys) related to communication with patients and discharge instructions.
- Review patient feedback from phone calls, letters, emails, or comments on social media platforms.
- Examine point-of-care data, such as meeting minutes, stories, or reports.
- Add questions to existing patient satisfaction surveys to reveal issues or opportunities.

(AHRQ, 2017b; Carman et al., 2014)

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their own unique set of practice implications. For example, blood transfusions for some nursing units may be infrequent and warrant different resources to ensure safe, up-to-date patient care.

Find topics supporting recognition for excellence that meet and exceed regulatory standards (Flodgren et al., 2016). For example, the Magnet Recognition Program® identifies organizational commitment and nursing's dedication to excellence in healthcare (American Nurses Credentialing Center, n.d.-a). Leverage the importance of a culture of safety, quality, and patient-centered values to bring about "change thinking" for frontline teams that may trigger opportunities for improvement (Manley et al., 2019; Tan et al., 2019; Yoo et al., 2019). Advocate for EBP facilitators and a training program, as both foster learning and motivate clinicians to identify triggers for an EBP change (Cullen et al., 2020; Friesen et al., 2017; Mudderman et al., 2020; Yoo et al., 2019). Pursue strong academic-clinical partnerships to create learning cultures that promote inquiry and identification of opportunities for practice improvements (Migliore et al., 2020).

Look for activities happening within your local setting, state, or territory that influence healthcare practice. As healthcare systems increasingly cross county and state boundaries, organizations must be responsive to additional regulations. State level initiatives include changes in state funding (e.g., mental healthcare services), legislative agendas, standards for accreditation, or state practice board announcements.

National initiatives and the national quality agenda (e.g., maternal health, addressing disparities) drive practice as well (Fleming et al., 2019; National Academies of Sciences, Engineering, and Medicine, 2021a). Look for topics being explored by your local organization and experts or upcoming changes in reimbursement (e.g., value-based purchasing; Centers for Medicare & Medicaid Services, 2021b), or turn to initiatives such as Choosing Wisely® (American Academy of Nursing, n.d.; American Board of Internal Medicine Foundation, n.d.) for ideas. Find reliable sources you can connect with to stay informed on evolving national or international initiatives. As you begin, use professional organizations as a trusted source for new initiatives and evidence that may inform EBP in your setting.

Local operational issues and clinical topics both result in good questions to address through the EBP process. Consider operational issues linked to EBP such as teamwork (Chapman et al., 2017), transformational leadership (Farahnak et al., 2020; Guerrero et al., 2020; Zhang et al., 2020), staffing (Farrington et al., 2020), or application of human factors principles (Keller et al., 2018; Klarich et al., 2022; Xie & Carayon, 2015).

RESOURCES Organizations and Initiatives

This list includes influential organizations and federally funded initiatives that continue to influence the current healthcare agenda. See respective websites.

Resource	Description
American Academy of Nursing – Choosing Wisely	An initiative to guide conversations between providers and patients to help patients choose care that is evidence-based, not duplicative of other care/procedures/tests, free from harm, and truly necessary.
American Board of Internal Medicine Foundation – Choosing Wisely	An initiative of the American Board of Internal Medicine Foundation that seeks to advance a national dialogue on avoiding unnecessary medical tests, treatments, and procedures.
American Nurses Association	A major organization representing the interests of US registered nurses that is at the forefront of improving the quality of healthcare for all.
Centers for Disease Control and Prevention	One of the major operating components of the Department of Health and Human Services that works to protect America from health, safety, and security threats, both foreign and in the US.
Centers for Medicare & Medicaid Services	The US federal agency that works with state governments to manage the Medicare program and administer Medicaid and the Children's Health Insurance Program, all for protecting the health and well-being of Americans.

(*continues*)

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RESOURCES Organizations and Initiatives *(continued)*

Resource	Description
Consumer Assessment of Healthcare Providers and Systems (CAHPS)	A program within the AHRQ that surveys consumers and patients to report on and evaluate their experiences with health plans, providers, and healthcare facilities, with the goal to understand and improve patient experiences with healthcare.
ECRI Guidelines Trust	An interactive guideline portal of current, evidence-based clinical practice guideline summaries for clinicians, researchers, medical librarians, and patients (formerly developed and maintained by AHRQ's National Guideline Clearinghouse™).
Guidelines International Network	An organization that connects organizations and individuals across the world to promote collaboration, continuous learning, and efficiency in the endorsement of guidelines aimed to improve healthcare through using evidence and implementing evidence-based guidelines.
Institute for Healthcare Improvement	An organization grounded in improvement science to advance and sustain better outcomes in health and healthcare across the world, raise awareness of safety and quality, accelerate learning and the systematic improvement of care, identify solutions to challenging health situations, and mobilize groups to reduce harm and deaths.
International Patient Decision Aid Standards (IPDAS) Collaboration	Worldwide group of researchers, practitioners, and stakeholders dedicated to maintaining an evidence-based set of criteria for determining whether a decision aid is a source of reliable health information that can aid individuals in making their best healthcare decisions.
The Joint Commission	An independent organization that evaluates, accredits, and certifies healthcare organizations that demonstrate they provide safe and effective care of the highest quality and value and seek continuous improvement in healthcare for the public.
National Academy of Medicine (NAM)	One of three academies that make up the National Academies of Sciences, Engineering, and Medicine (the National Academies) in the US. Formerly known as the Institute of Medicine, NAM aims to improve health for all by advancing science, accelerating health equity, and providing independent, authoritative, and trusted advice nationally and globally.
National Institute of Health and Care Excellence	A United Kingdom agency that provides national evidence-based guidance and advice to improve health outcomes for people using the National Health System and other public health and social services care.
Patient-Centered Outcomes Research Institute	An independent US nonprofit, nongovernmental organization that partners with key healthcare stakeholders to identify critical research questions and answer them through comparative clinical effectiveness research, focusing on outcomes important to patients.
Registered Nurses' Association of Ontario	A Canadian organization that advocates for healthy public policy, excellence in nursing practice, and empowerment of nurses to actively influence and shape decisions that affect the profession and the public they serve.
Sigma Theta Tau International Honor Society of Nursing	An international nursing honor society that recognizes and develops nurse leadership, scholarship, innovation, and service globally to improve healthcare everywhere.
US Department of Health & Human Services	A US governmental agency that aims to enhance the health and well-being of all Americans by promoting effective health and human services and by fostering sound, sustained advances in the sciences underlying medicine, public health, and social services.

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DATA/NEW EVIDENCE

Today's healthcare settings create and store information in multiple databases and use diverse data sources. These data can be highly valuable for identifying clinical and system-level opportunities for improvement. Explore data from your local departments such as epidemiology, hospital quality, billing, utilization review, or informatics. If data already exist, organizational commitment and potential resources to address the problem may be available. Gain support and generate interest in the topic by obtaining relevant and convincing data to help identify a practice gap (see Strategy 2-9).

Identify other triggers for practice improvements by reviewing additional data sources. Examine routine data reports, shared among teams, for indicators (e.g., quality improvement data). Use the electronic health record (EHR) as a data source and monitor data trends in your area for practice improvement opportunities. Review local patient event reports for missed care or safety issues in need of improvement and EBP change (Hessels et al., 2019). Look for opportunities identified by federal evidence sources (e.g., CMS Hospital Compare or CDC data).

External benchmarking is a voluntary process of tracking and comparing quality and excellence indicators from a healthcare organization with other similar organizations. Examine processes associated with the benchmark data as another way to identify improvement opportunities (Wind & van Harten, 2017). Use benchmark data as a strategy to identify stakeholders and existing resources from the organization's quality and safety program (see Strategy 2-15). Statewide system reporting offers information for improving benchmarks and timely feedback (Gardner et al., 2019). Examples of benchmark data include medication reconciliation upon hospital admission, management of hospital-acquired conditions (e.g., nosocomial infections, pressure injuries, patient falls), and 30-day readmission rates.

Use new information to trigger an idea. Common sources of new evidence and knowledge include:

- Research or other literature
- Conferences
- Professional organizations
- Experts in the field

These knowledge sources and other professional development activities may inspire you to identify numerous opportunities for practice improvements. Read professional and scholarly literature to keep your practice current. Set up electronic alerts to receive automatic notifications of new reports. Explore literature from a variety of fields to stimulate interest and innovative solutions for old problems that may lend themselves to EBP (Klarich et al., 2022). Monitor for practice variation, updates to initiatives (e.g., Choosing Wisely), and professional organization recommendations (American Board of Internal Medicine Foundation, n.d.; Hanrahan et al., 2020; Niven et al., 2015; Upvall et al., 2019; van Bodegom-Vos et al., 2017). Stay abreast of practices that lack evidence to support their ongoing use (e.g., over screening) or practices that could potentially be harmful to patients (e.g., unnecessary imaging) and require de-implementation (see Chapter 7).

ACCREDITING AGENCY REQUIREMENTS/REGULATIONS

As part of your professional role, work with accrediting and regulatory agencies that influence practice. National patient safety goals, certification program standards, and other accrediting agencies are evidence-based (Association for the Advancement of Blood & Biotherapies, 2021; The Joint Commission, n.d.; National Cancer Institute, 2019b). Compare your practices with the evidence-based standards from these agencies to identify opportunities for improvement. Look for process data for core metrics to gain additional insight into opportunities or issues (Hanskamp-Sebregts et al., 2020).

PHILOSOPHY OF CARE

Nursing and other disciplines have a rich history of care based on patient advocacy, science, theories, and other evidence, all of which may trigger a practice question or inquiry. Holistic and integrative theories (Frisch & Rabinowitsch, 2019) guide us in connecting with patients and their families. Use interactions with patients to identify issues or opportunities that align with philosophies such as holistic care, patient-centered care, relationship-based care, and shared decision-making (Frisch & Rabinowitsch, 2019; R. Lau et al., 2016; Smith et al., 2021). For example:

- *Why* are patient cares related to ambulation or mobility missed (Bragadóttir et al., 2017; Mandal et al., 2020)?
- *What* if evidence-based symptom management was integrated in care across the continuum, from health promotion through end-of-life (Harding, 2018)?
- *How* are patients and families engaged in shared decision-making (Singh Ospina et al., 2020)?

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NEXT STEPS

Moving forward, you may have several triggering issues, opportunities, and topics to think about and prioritize. As you progress, you will narrow the topic and scope. Use the tools and examples in this chapter to help understand the background to your topic. Identify potential key stakeholders with interest in the opportunity early. Expect the topic of interest to evolve as you work through the next steps in the EBP process. In Chapter 2, you will clearly define the problem and develop a purpose statement or question.

TIPS Identify Triggering Issues/Opportunities

- Ask the questions *Why*, *What if*, and *How?* to improve practice.
- Remain open to new ideas and opportunities to improve care.
- Engage patients in discussions to ensure care is patient-centered and promotes shared decision-making.
- Identify patient questions or concerns as potential EBP topics.
- Routinely review quality data to identify opportunities for improvement.
- Understand and leverage data systems, regulatory expectations, and organizational priorities.
- Engage leaders to co-create a culture of inquiry and act as role models for clinicians new to the clinical area.
- Listen to questions from new team members who bring a fresh perspective on practice routines.
- Look for practice updates and reversals as the evidence continues to develop.
- Invest in identifying new research evidence relevant to your practice.
- Focus first on the outcome to improve related to the issue or opportunity; choosing an intervention or practice too early may slow progress.

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EXAMPLE 1.1 Identify Triggering Issues/Opportunities and Associated Key Stakeholders—Clinician Resilience and Retention

Topic: Build Clinician Resilience and Retention

Step 1: Check the sources of the practice improvement opportunity

Type of trigger/opportunity

- ☑ Clinical identified issue
- ☐ Patient identified issue
- ☑ Organization/state/national initiative
- ☑ Data/new evidence
- ☐ Accrediting agency requirements/regulations
- ☐ Philosophy of care

Additional sources

- ☑ Professional organization
- ☑ Unit- or system-based issue
- ☐ Ethical conflict
- ☑ Other: student project

Step 2: Identify associated key stakeholders

Role	Name	Required Team Member	Optional Team Member	Receives Updates	Receives Formal Reports
Academic partner	Mary, Faculty Advisor		X		X
Clinical director	Steve	X		X	X
Clinician	Mark, RN; Ann, RN	X			
Dietician/nutritionist					
Evidence-based practice (EBP) facilitator	Casey, RN	X			
Executive sponsor	Sue, Chief Nurse Executive			X	X
External consultant	Martha		X		X
Infection preventionist					
Informatics specialist					
Interprofessional team members	Steve, Human Resources	X		X	X
Medical director	Madeline, MD	X		X	X
Nurse manager	Margaret, RN	X		X	X

(*continues*)

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EXAMPLE 1.1 Identify Triggering Issues/Opportunities and Associated Key Stakeholders—Clinician Resilience and Retention *(continued)*

Step 2: Identify associated key stakeholders *(continued)*

Role	Name	Required Team Member	Optional Team Member	Receives Updates	Receives Formal Reports
Occupational therapist					
Other units/departments where practice change is relevant or has impact	Meghan, Wellness Coach	X		X	X
Patient	Paul	X			
Pharmacist					
Physical therapist					
Provider	Ellyn, ARNP		X	X	X
Quality improvement specialist					
Respiratory therapist					
Social worker	Jean, LSW		X		

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EXAMPLE 1.2 Identify Triggering Issues/Opportunities and Key Stakeholders—Falls

Topic: Falls

Step 1: Check the sources of the practice improvement opportunity

Type of trigger/opportunity

- ☑ Clinical identified issue
- ☐ Patient identified issue
- ☐ Organization/state/national initiative
- ☑ Data/new evidence
- ☐ Accrediting agency requirements/regulations
- ☐ Philosophy of care

Additional sources

- ☐ Professional organization
- ☑ Unit- or system-based issue
- ☐ Ethical conflict
- ☐ Other:

Step 2: Identify associated key stakeholders

Role	Name	Required Team Member	Optional Team Member	Receives Updates	Receives Formal Reports
Academic partner					
Clinical director	John, RN, Inpatient Services		X	X	X
Clinician	Mary, RN	X			
Dietician/nutritionist					
Evidence-based practice (EBP) facilitator	Elyse, RN	X		X	X
Executive sponsor					
External consultant					
Infection preventionist					
Informatics specialist	Lilly	X		X	X
Interprofessional team members					
Medical director	Nancy, MD		X	X	X
Nurse manager	Ina, RN		X	X	X
Occupational therapist					

(*continues*)

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EXAMPLE 1.2 Identify Triggering Issues/Opportunities and Key Stakeholders—Falls

(continued)

Step 2: Identify associated key stakeholders *(continued)*

Role	Name	Required Team Member	Optional Team Member	Receives Updates	Receives Formal Reports
Other units/ departments where practice change is relevant or has impact					
Patient	Sarah	X			X
Pharmacist	Jon, MPharm	X		X	X
Physical therapist	Mike, PT	X		X	X
Provider	Carmen, PA	X		X	X
Quality improvement specialist	Midhat, RN	X			X
Respiratory therapist					
Social worker	Jose, MSW		X		X

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EXAMPLE 1.3 Eliciting Patient-Focused Triggers—Falls

Ways to Engage Patient	Scripting Example
☑ Invite a patient to talk about a patient care topic.	"Hi (name of patient). I saw in your health record that you have had some falls this past year. Can we talk about why you may have had these falls?"
☑ Use active listening. Ask open-ended questions. Use reflective statements. Be sure you fully understand their perspective, concerns, and questions.	"What are your thoughts about your falls and why they happen?" "I hear you saying the bathroom in your house is not convenient and it is hard to get around at night, but this is your home and you do not have or want another option right now."
☑ Explore what symptoms and experiences might be triggers for talking about other interventions and approaches to care.	"So, your house is not set up to avoid stairs in the night, but you really like your home and do not want to leave. Tell me a little bit more about how your evenings and nights go and when you have to use the bathroom."
☑ Use patient assessments to guide patient care and alternative care practices.	"Your medicine may be causing you to need to use the bathroom in the middle of the night. You have tried to limit fluids. You take the medicine as early as you can. You turn lights on and use the railing as best as you can. You are indeed trying to prevent falling. Would you be willing to think about a program that sends a visiting nurse and physical therapist to your home? They would help look at and make changes in your home and provide guidance to lower your risk of falling."
☑ Assess patient values and preferences when planning evidence-based care. Be sure they agree to the plan.	"It is important to stay in your home and make things work to lower your risk of falling. Tell me a bit more about what is most important to you and your goals for staying in your home."
☑ Use ethical dilemmas as opportunities to further explore the evidence for guiding patient-centered decision-making.	"Your falling several times concerns us about your safety. We worry you will have a serious injury. Yet we want to balance this with your goals and values. Can we talk about other ways to protect your safety?"

Summary Statement: The patient has experienced multiple falls at home. Falls occur at night related to needing to use the stairs to reach the bathroom. Current waking several times a night to use the bathroom related to medication regime. To reduce risk for falls, patient has altered medication schedule, restricted fluids in the evening, added lights and a stair railing. Patient values staying in the home and is open to visiting nurse or physical therapy visits. The current recommendations for care do not match patient preferences for care at home.

Potential patient-focused triggers identified:

- Co-design in-home falls reduction plan
- Home care instruction to match patient preferences
- Alternative medication regimes to reduce night voiding
- Alternative design of night toileting practice (i.e. bedside commode, urinal)
- Visiting nurse to provide in-home falls risk assessment
- In-home physical therapy to reduce falls risk

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TOOL 1.1 Identify Triggering Issues/Opportunities and Associated Key Stakeholders

INSTRUCTIONS: Check the box to identify the sources of the triggering issue or opportunity. Next, identify key stakeholders who have interest or responsibility associated with these sources. Fill in the name and check the box to indicate the extent of involvement or communication anticipated for an evidence-based practice (EBP) change.

Topic:

Step 1: Check the sources of the practice improvement opportunity

Type of trigger/ opportunity

- ☐ Clinical identified issue
- ☐ Patient identified issue
- ☐ Organization/state/national initiative
- ☐ Data/new evidence
- ☐ Accrediting agency requirements/regulations
- ☐ Philosophy of care

Additional sources

- ☐ Professional organization
- ☐ Unit- or system-based issue
- ☐ Ethical conflict
- ☐ Other:

Step 2: Identify associated key stakeholders

Role	Name	Required Team Member	Optional Team Member	Receives Updates	Receives Formal Reports
Academic partner					
Clinical director					
Clinician					
Dietician/nutritionist					
EBP facilitator					
Executive sponsor*					
External consultant					
Infection preventionist					
Informatics specialist					
Interprofessional team members (list specialties)					
Medical director					

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Step 2: Identify associated key stakeholders

Role	Name	Required Team Member	Optional Team Member	Receives Updates	Receives Formal Reports
Nurse manager					
Occupational therapist					
Other units/departments where practice change is relevant or has impact					
Patient					
Pharmacist					
Physical therapist					
Provider					
Quality improvement specialist					
Respiratory therapist					
Social worker					
Others:					

*Consider executives representing the clinical department (e.g., nursing, anesthesia, radiology) or support services (e.g., quality, informatics, engineering).

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TOOL 1.2 Guide for Eliciting Patient-Focused Triggers

INSTRUCTIONS: Use this guide to engage a patient in discussion that will identify a patient-focused trigger and examples of scripting.

Ways to Engage Patient	Scripting Example
☐ Invite a patient to talk about a patient care topic.	"Hi (name of patient). I saw in your health record that _____. Can we talk about _____?"
☐ Use active listening. Ask open-ended questions. Use reflective statements. Be sure you fully understand their perspective, concerns, and questions.	"What are your thoughts about your _____?" "I hear you saying that _____ and _____."
☐ Explore what symptoms and experiences might be triggers for talking about other interventions and approaches to care.	"So, I understand that _____. Tell me a little bit more about how/what _____."
☐ Use patient assessments to guide patient care and alternative care practices.	"So, what I hear you saying is that your _____ may be causing you _____. You have tried _____. You feel _____. Would you be willing to think about _____? They would _____."
☐ Assess patient values and preferences when planning evidence-based care. Be sure they agree to the plan.	"It is important to you that _____. Tell me a bit more about what is most important to you and your goals for _____."
☐ Use ethical dilemmas as opportunities to further explore the evidence for guiding patient-centered decision-making.	"Your_____ concerns me about your _____. We worry you _____. Yet we want to balance this with your goals and values. Can we talk about other ways to _____?"

Summary Statement:

Potential patient-focused triggers identified:

TOOLS

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