THE PEACE MODEL
Evidence-Based Practice Guide for CLINICAL NURSES

Reynaldo R. Rivera
Joyce J. Fitzpatrick
NewYork-Presbyterian Hospital, one of the nation’s most comprehensive academic healthcare delivery systems, uses the evidence-based practice PEACE model to prepare all its nurses and position them as essential to improving patient and family-centered care. Not surprisingly, the healthcare network has continuously delivered high quality care and improved patient outcomes. Now, nurses everywhere can replicate this highly successful model.

In *The PEACE Model: Evidence-Based Practice Guide for Clinical Nurses*, authors Reynaldo R. Rivera and Joyce J. Fitzpatrick provide a road map to model implementation. Readers will learn to formulate and address clinical questions and disseminate findings, ultimately helping nurses integrate evidence at the bedside and through quality research. After reading this book, you will be able to:

- Apply the components of evidence-based practice (EBP) in your day-to-day nursing practice
- Differentiate between EBP, research, and quality improvement
- Discuss the PEACE model process, from problem identification to dissemination of findings
- Identify resources to support nurses in EBP, quality improvement, and research

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In his current role at NYP, he oversees the implementation of evidence-based initiatives, research studies, and practice innovations that will advance nursing science and improve patient outcomes/care. Rivera's research and contributions focus on nurse engagement and practice innovations including nurse residency program, academic-practice collaboration initiatives, mentoring, narrative nursing, appreciative inquiry, use of liberating structures, and enhancing professional governance.

Rivera served as a board member of the American Organization for Nursing Leadership, Advisory Board of the Duke-Johnson & Johnson Nurse Leadership Program, President of the American Association of Critical Care Nurses (AACN) New York City Chapter, and President of the Philippine Nurses Association of America.

He is a board member of the American Association for Men in Nursing (AAMN) Foundation as well as an advisory board of the Rockefeller University, Heilbrunn Family for Research Nursing. He has received many prestigious awards, such as the Teachers College, Columbia University Outstanding Alumni Award, AACN Flame of Excellence Award, and the AAMN Lee Cohen Award. He is a fellow of the American Academy of Nursing and of the Academy’s Selection Committee.

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From 1997–1999 she served as President of the American Academy of Nursing (AAN); she currently serves as Vice-Chair of the American Nurses Foundation. She has received numerous honors and awards; she was elected a Fellow in the American Academy of Nursing in 1981, Fellow in the National Academies of Practice in 1996, and an Honorary Fellow of the American Academy of Nurse Practitioners in 2018. She received the American Journal of Nursing Book of the Year Award 20 times. In 2014 Fitzpatrick was inducted into the STTI Research Hall of Fame. In 2016 she was named a Living Legend by AAN, and in 2018 she received the prestigious ANA Jessie M. Scott Award that recognizes leadership in demonstrating the interdependence between nursing education, practice, and research. In June 2019 she was awarded the International Council of Nurses and Florence Nightingale Foundation International Achievement Award, recognizing her contribution to advancing international nursing education through research, innovative conceptual models, and theory development.

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# Table of Contents

About the Authors ......................................................... vii  
Contributing Authors .................................................... ix  
Foreword ................................................................. xxii  
Introduction .............................................................. xxiv  

## 1  EVIDENCE-BASED PRACTICE, RESEARCH, AND QUALITY IMPROVEMENT  ............. 1  

- Introduction ............................................................ 1  
- The PEACE Model: A Framework for Evidence-Based Practice ............ 2  
  - Real-World Example of EBP ........................................ 3  
- Quality Improvement ................................................ 5  
  - Real-World Example of Quality Improvement ........................ 5  
- Research ................................................................. 6  
  - Real-World Example of Ethical Principles in Nursing Research ......... 7  
- When EBP, Quality Improvement, and Research Converge ................... 7  
- Summary ............................................................... 11  
- Review Questions .................................................... 11  
- References ............................................................ 12  

## 2  PROBLEM IDENTIFICATION .......................................... 15  

- Introduction ............................................................ 15  
- The PICO Question .................................................. 16  
- Steps in Forming the PICO Question ................................ 18  
  - Population: In Whom? .............................................. 19  
  - Intervention: Through What Means? ............................. 19  
  - Comparison: Compared to What? ................................ 20  
  - Outcome: To What End? ......................................... 20  
- Why Ask Why? ......................................................... 21  
- Summary ............................................................... 22  
- Review Questions .................................................... 22  
- References ............................................................ 23  

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# EVIDENCE REVIEW

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>27</td>
</tr>
<tr>
<td>Relevant Evidence: Identifying Search Needs Specific to EBP</td>
<td></td>
</tr>
<tr>
<td>Projects, QI Activities, and Research Studies</td>
<td>28</td>
</tr>
<tr>
<td>Evidence-Based Practice Evidence Review</td>
<td>28</td>
</tr>
<tr>
<td>Quality Improvement Evidence Review</td>
<td>30</td>
</tr>
<tr>
<td>Evidence Review for Research Studies</td>
<td>30</td>
</tr>
<tr>
<td>Literature Search Development and PICO Questions</td>
<td>31</td>
</tr>
<tr>
<td>Common Biomedical and Nursing Databases</td>
<td>32</td>
</tr>
<tr>
<td>Primary Literature Databases</td>
<td>32</td>
</tr>
<tr>
<td>Secondary Literature Databases</td>
<td>34</td>
</tr>
<tr>
<td>Hybrid Databases</td>
<td>35</td>
</tr>
<tr>
<td>The Nuts and Bolts of Literature Searching</td>
<td>39</td>
</tr>
<tr>
<td>Basic and Advanced Searching</td>
<td>39</td>
</tr>
<tr>
<td>Boolean Operators</td>
<td>42</td>
</tr>
<tr>
<td>Search Fields and Controlled Vocabulary</td>
<td>44</td>
</tr>
<tr>
<td>Explode and Focus</td>
<td>48</td>
</tr>
<tr>
<td>Truncation</td>
<td>49</td>
</tr>
<tr>
<td>Next Steps—Search Results</td>
<td>50</td>
</tr>
<tr>
<td>Management of Evidence Retrieved</td>
<td>54</td>
</tr>
<tr>
<td>Tables of Evidence</td>
<td>54</td>
</tr>
<tr>
<td>Citation Managers</td>
<td>55</td>
</tr>
<tr>
<td>Summary</td>
<td>57</td>
</tr>
<tr>
<td>Review Questions</td>
<td>57</td>
</tr>
<tr>
<td>References</td>
<td>59</td>
</tr>
</tbody>
</table>

# APPRAISE THE EVIDENCE

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>63</td>
</tr>
<tr>
<td>A Tale of Two Studies: Meditation and Hypertension Outcomes</td>
<td>64</td>
</tr>
<tr>
<td>Evidence Appraisal Example Using a Published Article</td>
<td>67</td>
</tr>
<tr>
<td>Step 1: Determine the Type of Study and Appropriate Tool to Critique the Study</td>
<td>67</td>
</tr>
<tr>
<td>Step 2: Read the Article</td>
<td>69</td>
</tr>
<tr>
<td>Step 3: Appraise the Article</td>
<td>72</td>
</tr>
<tr>
<td>Step 4: Summarize the Results and Make a Decision</td>
<td>81</td>
</tr>
</tbody>
</table>

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## 5  **CHANGE PRACTICE** .............................. 93

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>93</td>
</tr>
<tr>
<td>Key Steps to Implementing Practice Change</td>
<td>94</td>
</tr>
<tr>
<td>Identify and Engage Key Stakeholders and Members of EBP Change Team</td>
<td>95</td>
</tr>
<tr>
<td>Develop an Implementation Plan</td>
<td>99</td>
</tr>
<tr>
<td>Other Planning Considerations</td>
<td>101</td>
</tr>
<tr>
<td>Resistance to Change</td>
<td>101</td>
</tr>
<tr>
<td>Workflow and Work Environment</td>
<td>103</td>
</tr>
<tr>
<td>Organizational Policy Alignment</td>
<td>104</td>
</tr>
<tr>
<td>Carry Out the Implementation Plan</td>
<td>104</td>
</tr>
<tr>
<td>Hold a Launch Meeting</td>
<td>104</td>
</tr>
<tr>
<td>Launch a Pilot</td>
<td>105</td>
</tr>
<tr>
<td>Sustain Change</td>
<td>107</td>
</tr>
<tr>
<td>Monitoring Implementation Progress</td>
<td>107</td>
</tr>
<tr>
<td>Eliciting and Sharing Feedback</td>
<td>107</td>
</tr>
<tr>
<td>Celebrate Wins</td>
<td>108</td>
</tr>
<tr>
<td>Outcome Metrics</td>
<td>108</td>
</tr>
<tr>
<td>Expansion of Pilot Phase</td>
<td>108</td>
</tr>
<tr>
<td>Policy Updates</td>
<td>108</td>
</tr>
<tr>
<td>Summary</td>
<td>108</td>
</tr>
<tr>
<td>Review Questions</td>
<td>109</td>
</tr>
<tr>
<td>References</td>
<td>111</td>
</tr>
</tbody>
</table>

## 6  **CONDUCT RESEARCH** ............................ 113

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>113</td>
</tr>
<tr>
<td>Institutional Review Board (IRB)</td>
<td>114</td>
</tr>
<tr>
<td>Designing a Research Study</td>
<td>115</td>
</tr>
<tr>
<td>Research Methodology</td>
<td>119</td>
</tr>
<tr>
<td>Population/Sample</td>
<td>119</td>
</tr>
<tr>
<td>Data Collection</td>
<td>123</td>
</tr>
<tr>
<td>Testing an Independent Variable</td>
<td>124</td>
</tr>
</tbody>
</table>
# Data Analysis Plan
- Comparing Groups
- Summary
- Review Questions
- References

## Evaluation
- Introduction
- Evaluation of Outcomes
  - EBP Evaluation
  - Research Evaluation
- SQUIRE Guidelines
- Cost as a Dimension of EBP
  - Infrastructure Costs
  - Staff Education Costs
  - Implementation Costs
- Overview of Tools for Economic Evaluation
  - Cost-Consequence Analysis
  - Cost-Effectiveness Analysis
  - Cost-Minimization Analysis
  - Cost-Utility Analysis
  - Cost-Benefit Analysis
- Summary
- Review Questions
- References

## Disseminate Findings
- Introduction
- Disseminating Findings Through Peer-Reviewed Publications
  - Choosing a Journal
  - Predatory Journals
- Scholarly Writing Basics
  - Authorship and Author Order
  - Following Guidelines
Reviewing the Literature.........................................................156
Avoiding Plagiarism..............................................................157
Disseminating Findings at a Conference.................................158
Choosing a Conference.........................................................158
Submitting an Abstract for Conference Presentation...............159
Poster Presentations.............................................................160
Designing the Poster ............................................................161
Printing the Poster...............................................................163
Making the Most of Your Poster Presentation Session.............164
Oral (Podium) Presentations..................................................165
Summary..............................................................................167
Review Questions..................................................................167
References...........................................................................168

9   RESOURCES.................................................................171

Introduction..........................................................................171
Organizational Research Infrastructure and Foundation...........172
The Library...........................................................................176
Clinical Practice Guidelines..................................................178
Organizational Resources......................................................178
  Professional Governance Councils
    (EBP and Research, Education Staff Councils)....................179
  Journal Clubs.......................................................................179
  Subject Matter Experts (SMEs) in EBP and Research.............180
  Nurse Scientists...................................................................180
  Volunteer Members of the Academic Partners Program.........180
  Nursing Professional Development Specialists....................181
  Patient Safety, Risk, and Quality Officers.........................181
  Advanced Practice Registered Nurses.................................182
  Nurse Managers/Nurse Leaders...........................................182
  Research and EBP Fellowship Programs...............................182
Supportive Resources............................................................183
  EBP Workshops and Training...............................................183
  Critical Appraisal Tools.....................................................185
  Quality Outcomes................................................................185
10 PRACTICE EXEMPLARS ...............191

Introduction ..................................................191

Exemplar 1: Delaying the Newborn Bath: A Nurse Residency Program Practice Change ........................................192
  Step 1 | PEACE: Problem Identification ..................193
  Step 2 | PEACE: Evidence Review .........................194
  Step 3 | PEACE: Appraise Evidence .......................194
  Step 4 | PEACE: Change Practice
         (Recommendations and Next Steps) ...............194
  Step 5 | PEACE: Evaluation and Dissemination of Findings .195

Exemplar 2: Post-Stroke Depression: Nursing Knowledge and Practice Implications ..............................................195
  Step 1 | PEACE: Problem Identification ....................195
  Step 2 | PEACE: Evidence Review ............................196
  Step 3 | PEACE: Appraise Evidence .........................196
  Step 4 | PEACE: Conduct Research .........................197
  Step 5 | PEACE: Evaluation and Dissemination of Findings .197

Exemplar 3: Tai Chi to Reduce Falls in the Geriatric Population ....198
  Step 1 | PEACE: Problem Identification ....................198
  Step 2 | PEACE: Evidence Review ............................199
  Step 3 | PEACE: Appraise Evidence .........................199
  Step 4 | PEACE: Change Practice .............................199
  Step 5 | PEACE: Evaluation and Dissemination of Findings .200

Exemplar 4: Video-Based Education to Reduce Distress and Improve Understanding Among Pediatric MRI Patients ....202
  Step 1 | PEACE: Problem Identification ....................202
  Step 2 | PEACE: Evidence Review ............................203
  Step 3 | PEACE: Appraise Evidence .........................203
  Step 4 | PEACE: Conduct Research & Change Practice ....203
  Step 5 | PEACE: Evaluation and Dissemination of Findings .204

Point-of-Care Resources ............................................. 186
Summary ...................................................................... 187
Review Questions ...................................................... 187
References ............................................................... 189
Exemplar 5: Addressing the Barriers of Certification Through the Certification Ambassador Program .......................... 205
  Step 1 | PEACE: Problem Identification .............................. 205
  Step 2 | PEACE: Evidence Review ........................................ 207
  Step 3 | PEACE: Appraise Evidence ....................................... 207
  Step 4 | PEACE: Change Practice ......................................... 208
  Step 5 | PEACE: Evaluation and Dissemination of Findings .......... 208
Summary ................................................................. 209
Review Questions ....................................................... 210
References ................................................................. 210

INDEX .................................................................213
There is no question that the best prepared nurses must be available to provide patient and family-centered nursing care. Nurses are the backbone of all healthcare systems, often the heart and soul, ever present, providing 24-hour care. Without well-prepared nurses, our healthcare systems would not be as effective in meeting the needs of the many individuals, families, and communities we serve.

At NewYork-Presbyterian (NYP), nurses are key in improving the quality of patient and family-centered care. We also know that without the structure of the PEACE model to prepare all new and continuing nurses, we would not have the quality outcomes that have led to Magnet® designation for several of our hospitals. Our model for implementing evidence-based practice (EBP) and research is exemplary. From the EBP Deep-Dive sessions that are implemented with clinical nurses and the Nurse Residency Program that has been highly successful with new graduates, we believe that NYP is poised to continue to deliver the best healthcare and improve patient care outcomes.

Without question, part of the success of our endeavors has been our partnerships with academic nursing institutions. Our colleagues in academic research and scholarship have continued to share their expertise, just as our clinical nurses have shared their expertise in patient and family-centered care delivery. Academic-practice partnerships provide models for future success. We have successful models in place that can be adapted within other hospitals, large and small. Many examples included in this book showcase the academic-practice collaborations that we have initiated and continue to develop.

Throughout NYP we have created effective quality structures and implemented process improvements that have led to highly desirable patient care outcomes. We believe that these can be replicated in other institutions. The uniqueness of the PEACE model of evidence-based practice is its appeal to the clinical nurses who are providing care at the bedside. Our new and experienced nurses acclaim the value of the PEACE model for guiding their practice and research. It is a mnemonic that is easy to remember, particularly given today’s times of social turmoil. Clinical nurses gravitate toward an understanding of the value of peace in their everyday work, with the patient who is experiencing a health crisis to assistance with family members who are bewildered about the complexity of the healthcare delivery system to the population health issues that abound in our communities and demand evidence-based solutions to care delivery.
Nurses are obligated to fulfill their compact with society, to deliver on the care promises that are an inherent part of their professional licensure. At NYP, we believe we have an obligation to lead the way to better care for each patient and their family members and for our communities and our broader societies. We also believe that the PEACE model will drive quality care toward our end goal: excellence in care for all.

Wilhelmina (Willie) M. Manzano
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Introduction

—Reynaldo R. Rivera, DNP, RN, NEA-BC, FAAN
—Joyce J. Fitzpatrick, PhD, MBA, RN, FAAN, FNAP

“Let whoever is in charge keep this simple question in her head (not, how can I always do this right thing myself) how can I provide for this right thing to be always done.”

—Florence Nightingale

Nurses are in charge of the patients and their families throughout the hospital and health system experience. They assist patients through illness to achieve higher levels of health. They coordinate the care throughout the patients’ experiences with the healthcare system. Nurses are the leaders of patient care at the bedside and beyond. It is important that as clinical leaders, nurses have the most accurate, most up-to-date, and evidence-based information available so that they can always do the right thing. The PEACE model develops clinical nurses as leaders in care of both patients and their families. Clinical nurses, those at the point of care, have embraced this model for guiding their practice. The PEACE model helps clinical nurses solve challenging problems through a rigorous evidence-based practice process—from problem identification to evaluation and dissemination.

The crux of the PEACE model is the mnemonic that simplifies the evidence-based practice (EBP) process for clinical nurses. The PEACE model is used across NewYork-Presbyterian (NYP), one of the nation’s most comprehensive academic healthcare delivery systems. NYP is composed of 10 hospitals in New York and employs more than 11,000 nurses across the enterprise.

One striking advantage of the model is that it emerged from the work of clinical nurses who were struggling to find a way to remember and apply the components of other EBP models. Clinical nurses have indicated that the components of the PEACE model make the model memorable and useful (see Figure I.1):

**P** for problem identification
**E** for evidence review
**A** for appraising the evidence
**C** for changing practice or conducting research
**E** for evaluating and disseminating the findings
PEACE Model

PROBLEM IDENTIFICATION
Formulate the clinical question (PICO):
- P | Patient Population
- I | Intervention
- C | Comparison of Intervention
- O | Outcome

EVIDENCE REVIEW
Review evidence relevant to your clinical question by searching databases.

APPRaise EVIDENCE
Appraise the evidence that appears highest in the hierarchy of scientific evidence for its quality and applicability to practice.

CHANGE PRACTICE OR CONDUCT RESEARCH
If evidence is sufficient, embark on improvement project to address practice change.
If evidence is insufficient to warrant practice change, conduct research.

EVALUATE AND DISSEMINATE FINDINGS
Evaluate the impact of the implemented practice change and research results.
Disseminate findings through publication, oral, and poster presentations.

Figure 1.1 | NYP PEACE model.
The last stage of the PEACE model is particularly important to advancing nursing practice across institutions. We have found that unless the model results are disseminated through scholarly presentations and publications, the clinical challenges continue to be present across sites and institutions. We emphasize this phase and conduct publication workshops to help clinical nurses shape the dissemination of their EBP work. Nurses’ active participation in EBP and research is critical to improving the care we provide to patients and furthering nursing science. It is important to note that the design of the PEACE model intentionally linked EBP, quality improvement (QI), and research.

Uniqueness of PEACE Model

The mnemonic PEACE promotes understanding and application by clinical nurses, providing a way to easily remember the EBP component stages. The uniqueness of the PEACE model is its simplicity. This relevance leads to continued application in day-to-day nursing practice. As we strive for peace at many levels of our lives and work, the mnemonic is easy to remember. The PEACE model may be adapted to any setting where nurses practice.

Goals of the Book

After reading this book, you will have the opportunities to:

- Differentiate between EBP, research, and quality improvement.
- Discuss the PEACE model process from problem identification to dissemination of findings.
- Identify resources to support nurses in EBP, quality improvement, and conducting research.

Organization of the Book

The chapters are organized using the five-step EBP process, including chapters addressing differentiating research, EBP, QI, resources, and practice exemplars.

Chapter 1: This chapter provides defining principles, similarities and differences in EBP, QI, and research when pursuing scholarly EBP projects, QI activities, and research studies.
Chapter 2: This chapter centers on the first step of the PEACE model, which uses a specialized framework known as PICO (Population, Intervention, Comparison Intervention, and Outcome) to formulate a meaningful clinical question that would facilitate an effective search for existing literature.

Chapter 3: The second step of the PEACE model is evidence review, which consists of a literature review of the most current research findings utilizing available databases. Learners are introduced to the nuts and bolts of literature searching—use of Boolean operators, controlled vocabulary, keywords, truncation, and limits and management of evidence retrieved.

Chapter 4: The third step of the PEACE model is to appraise the evidence. Appraising evidence guides nurses to evaluate the levels and quality of the evidence and determine whether there is sufficient evidence to initiate a practice change or embark on an additional research study.

Chapter 5: The fourth step of the PEACE model is either to change practice or to conduct research—if evidence is sufficient, then change practice. This chapter provides steps in planning and implementing EBP change and strategies to sustain practice changes.

Chapter 6: If you determine that there is insufficient evidence to warrant practice change or a gap in knowledge, then the next logical step is to conduct research. This chapter focuses on developing a research plan that is grounded or well thought out, designing sound research methods that are clear of ethical quandaries.

Chapter 7: The fifth step of the PEACE model is to evaluate and disseminate findings. This chapter centers on the evaluation of implemented practice change and research results. It focuses on the importance of planning projects, especially on outcome measures.

Chapter 8: This chapter focuses on the importance of disseminating findings through publication, oral, and poster presentations.

Chapter 9: This chapter describes NYP’s resources that you may adapt in your institutions to build the culture of inquiry.

Chapter 10: This chapter provides exemplars of EBP and research that utilize the PEACE model.
Utilization of the PEACE Model

The PEACE model is an integral component of NYP’s Nurse Residency Program, which supports new graduate nurses’ transition from advanced beginners to competent nurses. All EBP projects completed by new graduate nurse residents utilized the PEACE model. NYP’s Nurse Residency Program has received accreditation with distinction from the American Nurses Credentialing Center, a recognition for excellence in transitioning nurses to new practice settings. The PEACE model may be adopted by the nurse residency program as you build your culture of inquiry in your institutions.

We also provided classes on EBP/Research Deep Dive, where nurses receive hands-on guidance on how to proceed with a research idea or question utilizing the NYP PEACE model. This book will be a resource for our nurses who are interested in knowing a simple, concise, and easy-to-use PEACE model.

Educational Relevance

Based on its relevance to clinical nurses, the PEACE model is particularly suited to RN to BSN students as well as students in prelicensure BSN programs. This book may be used in several clinical courses to illustrate the work that practicing nurses initiate and can be used in specific EBP courses. At the graduate education level, the book may be used as a required text or supplementary reference for both EBP and research courses, as there are several examples that address the components relevant to each of the EBP and research processes. The nurses who have used the model in their clinical work at NYP have indicated that it also is useful in their academic pursuits. In addition to the applications within formal academic programs, we have found the PEACE model relevant to continuing education programs across a wide range of clinical specialties.

We hope that nurses will find this book a road map from delineating the steps of how to formulate and address a clinical question to the dissemination of findings. We believe that nurses’ integration of evidence at the bedside and conduct of research are foundational to advancing nursing science, improving the care we provide to patients, and achieving optimal patient outcomes.
**PEACE MODEL**

**PROBLEM IDENTIFICATION**
Formulate the clinical question (PICO):
- **P** Patient Population
- **I** Intervention
- **C** Comparison of Intervention
- **O** Outcome

**EVIDENCE REVIEW**
Review evidence relevant to your clinical question by searching databases.

**APPRAISE EVIDENCE**
Appraise the evidence that appears highest in the hierarchy of scientific evidence for its quality and applicability to practice.

**CHANGE PRACTICE OR CONDUCT RESEARCH**
If evidence is sufficient, embark on improvement project to address practice change.
If evidence is insufficient to warrant practice change, conduct research.

**EVALUATE AND DISSEMINATE FINDINGS**
Evaluate the impact of the implemented practice change and research results.
Disseminate findings through publication, oral, and poster presentations.

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CHAPTER OBJECTIVES

After studying this chapter, learners will be able to:

1. Delineate components of the NYP PEACE model and describe the process from problem identification to dissemination of findings.
2. Provide exemplars of evidence-based practice (EBP) and research that illustrate utilization of the NYP PEACE model through a five-step process.
3. Develop an EBP project using the NYP PEACE model.

Introduction

This chapter provides exemplars of evidence-based practice (EBP) projects and research at NewYork-Presbyterian (NYP) Hospital that illustrate utilization of the NYP PEACE model. Each exemplar is used to demonstrate clinical nurse-driven practice change or the conduct of research through successful application of the PEACE model. We describe the five-step process from problem identification through dissemination and evaluation of findings in each practice example.

As nurses, it is important to think critically and apply your knowledge to drive improved patient care and outcomes through EBP and research. EBP may seem challenging at first; however, when you know and understand how to apply the PEACE model, you will be able to follow the simple process to complete an EBP project and make an impact in changing practice. Through the examples shared in
this chapter, you are provided with a guide to create your own EBP project leading to implementation of a practice change or dissemination of new knowledge through the conduct of research.

The PEACE model guides clinical nurses to identify and use available resources for obtaining scholarly evidence, research, and best practices in improving care of patients. It is a model to facilitate EBP review and the conduct and utilization of research. EBP and research projects start with identification of a problem, followed by formulation of a PICO question. Next steps include evidence review and appraisal, followed by changing practice or conducting research. For those clinical questions posed without sufficient evidence in the literature, nurses use the PEACE model to conduct research. Evaluation of an implemented practice change and dissemination of research findings are important final steps in the process.

In this chapter we use each exemplar to demonstrate the step-by-step process inherent in the PEACE model.

Step 1 | PEACE: Problem identification
Step 2 | PEACE: Evidence review
Step 3 | PEACE: Appraise the evidence
Step 4 | PEACE: Conduct research or change practice
Step 5 | PEACE: Evaluation and dissemination of findings

Exemplar 1
Delaying the Newborn Bath: A Nurse Residency Program Practice Change

–Mary Rose Papciak, MPA, BSN, RN, NEA-BC

The EBP project “Delaying the Newborn Bath” demonstrates our first example of a practice change implemented by using the PEACE model.

Four new graduate nurse residents developed this EBP project during their first year of practice. Throughout participation in the Nurse Residency Program (NRP), they worked together as a team to identify a problem relevant to their practice as mother/baby registered nurses (key stakeholders), conduct a literature review, and appraise the evidence. As a team, the nurse residents evaluated the current practice
at NYP on the mother/baby unit and recommended a nursing practice change based on the evidence review.

For the purposes of the NRP, the new graduate nurses completed the first three steps of PEACE—problem identification, evidence review, and appraise evidence. Based upon their literature review, they recognized a clinical need to implement a practice change. Therefore, the team of nurse residents went further with their work to include the “C” and “E” steps of the model.

*Exemplar 1 focuses on the clinical topic of delayed bathing of newborns delivered at or greater than 35 weeks gestation to improve patient outcomes.*

**Step 1 | PEACE**

**Problem Identification**

Nurse residents reported a rise in parent requests to delay their newborns’ bath, ranging from the initial hours of life to days after birth. Delayed bathing is a practice supported by various organizations, such as the World Health Organization and the American Academy of Pediatrics (Lund, 2016). Newborns are more susceptible to hypothermia than adults due to the increased surface area of an infant. Positive outcomes of this practice include increased parental bonding time with baby, increased breastfeeding rates, improved thermoregulation, and less incidence of hypoglycemia. As mother/baby nurses, the team of new graduate nurses were determined to provide the highest-quality, safest patient care for their patients, while also improving the patient experience. The purpose of this evidence-based project was to evaluate the effectiveness of delaying the newborn bath and to implement innovative ideas based on the evidence, keeping in line with the hospital’s policy to provide quality, patient-centered care based on best practice.

Current nursing practices include using soap and water to bathe stable newborns under the radiant warmer upon admission. The nurse residents’ goal was to engage key stakeholders in understanding the supporting evidence to their proposed practice change: delayed bathing.

The clinical question investigated was:

> Among newborns delivered at or greater than 35 weeks gestation, admitted to the NYP Weill Cornell Medical Center well-baby nursery, does delaying the newborn’s bath 12–24 hours after birth, compared to 2–4 hours, result in improved temperature regulation, blood glucose levels, and overall transition to the extra-uterine environment?
Step 2 | PEACE
Evidence Review

The team conducted a literature review using the NYP library resources available (PubMed). Inclusion criteria included articles published within the last five years and focused on the newborn population. The studies showed delayed bathing had a positive impact on breastfeeding rates, neonatal hypoglycemia, and thermoregulation of preterm infants. Evidence supporting this practice change aligns with the hospital’s goal of becoming a baby-friendly organization. Nurse residents also summarized the evidence to support their clinical question.

Step 3 | PEACE
Appraise Evidence

After the strengths and limitations of the studies were reviewed, the Critical Appraisal Skills Programme (CASP) checklist was used to assess the quality of the studies. Strengths of the articles appraised included similar patient populations and transferability of findings to clinical settings. One article involved was a randomized controlled trial, which collected data pre- and post-bathing to monitor thermoregulation (Loring et al., 2012). Limitations included limited sample sizes based upon gestational age and high risk of hypoglycemia.

Step 4 | PEACE
Change Practice
(Recommendations and Next Steps)

After reviewing the literature, current practice, and patient preferences, the nurse residents recommended delaying the newborn bath at least 12 hours post-delivery (Preer et al., 2013). New graduate nurse residents also endorsed continued education to both patients and nurses on the benefits of skin-to-skin contact—which is supported by the delayed bath—thereby lessening maternal infant separation and further improving thermoregulation. By discussing this practice change with the nursing leadership team (key stakeholders), a plan for the pilot implementation was considered and launched on the postpartum unit. Both clinical nurses and parents were educated on the benefits of delayed bathing to further promote compliance.
Step 5 | PEACE
Evaluation and Dissemination of Findings

Next up for the team was dissemination of findings with their colleagues in nursing, unit leadership, and medical providers, as well as proposing implementation of the delayed bath on the postpartum nursing unit. Additionally, the team encouraged and supported the new practice change to improve patient outcomes.

An evaluation of benefits was conducted on the postpartum unit, and practice change was later expanded to a second unit as a result of the positive outcomes.

**Discussion:** This project was presented to the nursing leadership team during the NRP graduation celebration in the form of a poster presentation. It was further shared at the unit level and presented to the nursing practice council for policy revision and update. Nurse residents received support from the medical provider team during implementation as well, which contributed to their success. Feedback has been positive since implementation, and the practice has received interest at various NYP sites across the enterprise. This new knowledge has been nationally disseminated at the Vizient/AACN Nurse Residency Program™ conference.

**Acknowledgment:** The authors want to recognize the clinical nurses and nurse leaders at NYP Hospital who participated in the development of this exemplar—specifically, Tammy Leung, BSN, RN; Veronica Pasha, BSN, RN; Stephanie Savage, BSN, RN; and Bethany Saduddin-Singh, BSN, RN.

Exemplar 2
Post-Stroke Depression: Nursing Knowledge and Practice Implications

—Jason R. Johnson, BSN, RN, SCRN, Clinical Nurse I, Cardiothoracic ICU

Step 1 | PEACE
Problem Identification

Stroke is the fifth leading cause of death in the United States and one of the major causes of physical disability. Ischemic and hemorrhagic strokes can lead to numerous complications, including motor weakness, aphasia, dysphagia, visual disturbances, seizures, and pneumonia. Disability related to stroke is most often
characterized by functional disability, though impaired cognition (e.g., impairment of memory, attention, and executive functioning) can also be found.

Neurological patients in general, and stroke patients in particular, often experience psychiatric distress, such as euphoria, disinhibition, and helplessness. However, the most common form of emotional upset in the stroke patient is depression. Post-stroke depression can affect anywhere from 30% to 50% of stroke patients, with the risk highest immediately after the stroke event, up to one-year post-stroke. Post-stroke depression can result in reduced participation in rehabilitation activities, leading to decreased functional and cognitive recovery.

**Step 2 | PEACE Evidence Review**

A literature review was conducted primarily utilizing the Cumulative Index to Nursing and Allied Health Literature (CINAHL) database. Inclusion criteria included articles specifically on nursing implication of post-stroke depression, post-stroke depression epidemiology and pathophysiology, and post-stroke depression screening. Search results were limited to articles published in the last five years.

**Step 3 | PEACE Appraise Evidence**

The literature supports the use of early screening protocols for depression in stroke patients. The existing literature strongly supports the use of brief screening tools by clinical nurses to utilize in screening for post-stroke depression, and there is evidence of the value of assessing baseline nursing knowledge and perceptions related to depression in cardiac patients. However, few studies address the underlying issue of baseline knowledge level of clinical nurses on post-stroke depression as a major stroke complication, as well as the ability to screen for it early in the clinical course. If nurses are not aware of depression as a stroke complication, they cannot appropriately screen stroke patients for it.

The aim of the study was to determine the baseline knowledge level and beliefs of clinical nurses on a high-acuity neurosurgery stepdown unit related to post-stroke depression, as well as to determine whether a brief educational intervention can increase the knowledge level of nurses to have the foundation to intervene early to prevent further complications.
Step 4 | PEACE
Conduct Research

This study was a pretest-posttest pilot study on a 36-bed neurosurgery stepdown unit. At the time of study completion, there were 52 registered nurses employed on the unit. Staff primarily hold a bachelor of science in nursing, two are stroke certified registered nurses, two are neuroscience certified registered nurses, and two are certified in medical-surgical nursing. One nurse also is designated a clinical nurse III (CN III), the highest level on the clinical ladder advancement program for clinical nurses at the bedside at this institution. The unit is also led by a master’s-prepared RN, the patient care director. Participants for this study were drawn solely from clinical bedside nurses on the neurosurgery stepdown unit.

Participants completed the Post-Stroke Depression Knowledge and Attitudes Survey (PSD-KAS), a 32-item, author-designed survey that assesses knowledge and attitudes related to depression in general and post-stroke depression in particular. Survey items were rated on a Likert scale, ranging from strongly disagree (1 out of 5) to strongly agree (5 out of 5).

Following the pre-survey phase of the study, participants received an educational intervention focused on increasing basic clinical knowledge related to post-stroke depression. This educational intervention was given in small groups throughout clinical shifts of the participants. The intervention consisted of a brief, 15-minute in-service on the basics of post-stroke depression, common etiologies, epidemiology, clinical bedside nurse screening, and treatment strategies.

After the intervention phase of the study was complete, post-surveys were distributed to study participants. The post-survey consisted of the PSD-KAS, with two additional questions querying whether the participant completed the pre-survey or the educational intervention.

Step 5 | PEACE
Evaluation and Dissemination of Findings

Forty-six of 52 nurses completed the pre-survey, an 88.46% response rate; 39 of 52 nurses completed the post-survey, a 75% response rate. Mean score on pre-survey was 91.61 (SD: 4.21) out of 160, indicating slightly low (less than average) knowledge related to depression in general and post-stroke depression in particular. Mean score on the post-survey was 136.92 (SD: 6.98) out of 160, indicating high (greater than average) knowledge related to depression in general and post-stroke depression in particular.
Knowledge related to this study has been disseminated at local and national nursing conferences, including the American Association of Neuroscience Nurses’ (AANN) annual educational meeting, the AANN Advances in Stroke Care Conference, and the Academy of Medical-Surgical Nurses’ annual conference. The aim of this work is publication in a peer-reviewed journal.

**Discussion:** This project was presented in the NRP as a poster presentation and serves as an exemplar for new nurse residents. After completing the NRP, Jason Johnson, BSN, RN, SCRN participated in the NYP Academic Practice Research Fellowship and submitted his work for publication in the *Journal of Neuroscience Nursing* in September 2019. Mr. Johnson completed requested revisions in 2019 and re-submitted for publication in January 2020. He is awaiting a response on publication.

**Acknowledgment:** Jason R. Johnson, BSN, RN, SCRN, Clinical Nurse I, Cardiothoracic ICU

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**Exemplar 3**

**Tai Chi to Reduce Falls in the Geriatric Population**

–Avis Russ, MBA, MS, BSN, RN, NE-BC
–Elza Rosen, BSN, BS, RN
–Sarah Otto, BSN, RN

Elza Rosen, BSN, BS, RN, and Sarah Otto, BSN, RN, participated in the NYP NRP as new graduate clinical nurses. As part of the NRP, Rosen and Otto collaborated on an EBP project on falls risk due to the prevalence of falls and fall risks among the geriatric population. The fall prevention protocol at the time included the use of chair alarms, bed pad alarms, patient fall and injury prevention education, physical therapy evaluations, and assistive devices such as wheelchairs and walkers, night lights, and high fall risk alerts (yellow wrist band and yellow non-slip socks) and yoga.

**Step 1 | PEACE**

**Problem Identification**

Rosen and Otto were concerned that patients continued to fall despite implementation of the current fall prevention protocol. The clinical question investigated was:
“Does implementing the practice of tai chi twice per week in 15-minute segments in adults 65 years and older reduce the occurrence of falls compared to those who do not practice tai chi?”

Step 2 | PEACE
Evidence Review

Rosen and Otto conducted a literature search to collect evidence and best practices about fall reduction interventions that were not being included in the current fall prevention protocol. Evidence revealed that the use of tai chi reduced the incidence of falls in the 65 years of age and older population. At NYPH/Westchester Behavioral Health Center (WBHC), the current fall prevention protocol at that time consisted of chair alarms, bed pad alarms, patient fall and injury prevention education, physical therapy evaluations, assistive devices (such as wheelchairs and walkers), night lights, high fall risk alerts (such as yellow wrist bands and yellow nonskid socks), and yoga. As part of their search for the best evidence, the clinical nurses found that incorporating tai chi on a daily basis for 10 minutes reduced the incidence of falls in the 65 years of age and older population (Li et al., 2016). Tai chi was found to be an evidence-based fall reduction intervention that answered their clinical question.

Step 3 | PEACE
Appraise Evidence

Rosen and Otto reviewed articles related to fall prevention protocols in the geriatric population of patients. Articles on the use of tai chi were critiqued using the CASP tool. Literature reviewed was determined to be of good quality, and the nurses recommended a new practice intervention to support fall reduction.

Step 4 | PEACE
Change Practice

Based on the findings, the clinical nurses were interested in making a proposal to revise the current fall prevention protocol by adding the use of tai chi as a new falls prevention intervention to improve care with the goal of reducing falls among the geriatric population. Tai chi was incorporated into the activity schedule for patients meeting certain criteria on a geriatric psychiatry unit at NYPH/WBHC.
Rosen moved forward with her proposal to revise the existing fall prevention protocol by adding a supervised tai chi group twice a week that would be taught by the geriatric unit nurses in 15-minute segments. The goal was revised for the existing practice to add tai chi, an evidence-based intervention that was shown to be effective in decreasing fall incidences, increasing gait stability, and reducing fear of falling within the geriatric population.

**Step 5 | PEACE**

**Evaluation and Dissemination of Findings**

The NRP evidence-based project of Rosen and Otto culminated in a poster presentation at the NRP graduation on March 8, 2017. Their poster presented the next steps of their project to clinical nurses and the leadership team. They proposed that the current fall prevention protocol be revised by adding a supervised tai chi group taught by nurses twice a week in 15-minute segments, with the goal of improving care by reducing fall incidences, increasing gait stability, and reducing fear of falling among the geriatric population.

Following dissemination of findings through a poster presentation, Rosen received advisement to continue implementation of the EBP project by members of NYPH/WBHC’s New Knowledge, Innovations, and Improvements (NK) team (key stakeholders). The NK team, composed of nurses at all levels, is critical to assisting nurses with research, EBP, and quality projects.

Evaluation is an important step when implementing a practice change. In September 2017, a proposal to revise the existing geriatric unit fall prevention protocol was presented to the Psychiatric Nurse Practice Council. It was discussed that evidence-based findings support the use of tai chi in reducing falls and improving care. This revision to existing nursing practice as a pilot program was approved by the Psychiatric Nurse Practice Council at NYPH/WBHC.

Rosen coordinated the plan for the revision of the existing geriatric unit fall prevention protocol with her nurse manager. Rosen was advised to involve the interprofessional team, which would offer her additional support with sustaining the change. She received approval from the team to incorporate tai chi into the patient schedules and assistance from the medical group to offer medical clearance, which could be provided by advanced practice registered nurses. Rosen sought assistance from physical therapists to incorporate readiness for tai chi as part of their initial admission assessments. To facilitate the tai chi groups, she accessed available resources to secure videos, which she located at public libraries.
Rosen introduced the practice revision involving the fall prevention protocol and the introduction of tai chi to her peers at the September Unit Practice Council (UPC) meeting. At this meeting, she suggested a once-weekly intervention; however, she later decided to implement the tai chi group twice a week, which was recommended as part of the original proposal. During the UPC meeting, she showed excerpts from several tai chi videos to her peers to obtain their buy-in for the practice change and to have them weigh in on the choice of a video. The members chose a video titled “Fu Style: Healing Exercise—The Power to Heal Yourself Sitting Tai Chi” due to the video’s slow and clear instructions, which included breathing exercises that allowed for timed breaks. Rosen also developed a patient education handout with explanations and benefits about tai chi.

The nurses used the tai chi patient education handout as a teaching tool to educate the patients about tai chi prior to their voluntary participation. Rosen educated the unit nurses before the first group on where the video would be stored to ensure the groups were conducted twice weekly. Nurses were prepared for the group by watching a portion of the videos and reviewing the handout prior to the first group.

In early October 2017, the first tai chi group was conducted, with the group planned for Sundays and Mondays thereafter. Rosen facilitated the first tai chi group and supervised the patients in the dayroom as the video played. Ten patients participated, and at the end of the group, the patients reported feeling relaxed and focused and commented that they wanted this group to become a part of the routine unit schedule. Tai chi groups have continued to be implemented twice weekly.

**Discussion:** December 2017 data showed a reduction in patient falls on the inpatient geriatric unit, and reports of improved care continue to be evaluated. In the spring of 2017, Rosen and Otto participated in an annual poster showcase at NYPH/WBHC to further disseminate this new knowledge and practice change.

**Acknowledgment:** The authors want to recognize the clinical nurses and nurse leaders at NYP Hospital who participated in the development of this exemplar.
Exemplar 4
Video-Based Education to Reduce Distress and Improve Understanding Among Pediatric MRI Patients

–Dan Hogan, MSN, RN, CCRN

This exemplar describes a pilot randomized controlled trial conducted in a large, urban academic children’s hospital. This example will walk you through the steps a clinical nurse took using the PEACE model that led him to the conduct of research.

Step 1 | PEACE
Problem Identification

Magnetic Resonance Imaging (MRI) exams can cause distress, such as fear and anxiety, especially in the pediatric population (Koller & Goldman, 2012). Because of this distress and the need to get high-quality studies, pediatric patients often require sedation or anesthesia. The use of anesthesia comes with increased risks to patient safety, increased cost, and increased time at visit (Barnea-Gorlaly et al., 2014). One of the key strategies used to reduce distress in patients undergoing a medical procedure is providing age-appropriate education to patients and their caretakers. When a staff member’s school-age niece was scheduled for an MRI, she asked her aunt what an MRI was and what she should expect. Her aunt, a nurse practitioner (NP) in the Pediatric Diagnostic and Interventional Radiology Department, attempted to show her a video but had difficulty finding a suitable video online. When the NP and charge nurse (CN) of the unit investigated current education available on their own unit, they found that pediatric patients who were about to undergo an MRI exam received varying degrees of education prior to the exam. The content and length of education provided was mainly dependent on the experience, knowledge base, and comfort level of the MRI staff, as well as the time they had available to provide education and answer any questions from the patients or their caretakers.

The NP and CN met with the nurse manager of the unit to discuss their findings and see if there was a way to standardize the education given to the patients and their caretakers. Because of the lack of suitable videos available online, the perceived engagement level of the MRI staff, and the generally preferred learning style of the targeted population, the team decided that an educational video would be
the best tool. Subsequently, a seven-minute educational video was developed by an interprofessional healthcare team that included nurses, MRI technologists, and a child life specialist. The clinical question investigated was:

*What is the impact of an educational video on minimizing distress among pediatric patients that are about to undergo an MRI exam?*

**Step 2 | PEACE Evidence Review**

The research team conducted a literature review using the library resources available. Inclusion criteria were articles published within the past five years and focused on tools used to decrease distress such as anxiety, pain, and nervousness in pediatric patients who were about to undergo an exam or medical procedure. Although several studies focused on the use of distraction tools to decrease distress for procedures such as blood lab draws (phlebotomy) and peripheral intravenous line insertions, there were a limited number of studies involving MRI. Due to the limited number of studies, the team altered the initial inclusion criteria to include articles published within the past 10 years. Because increasing the inclusion criteria did not yield a relatively large increase in results, the team decided to conduct a randomized controlled study comparing distress levels of pediatric patients about to undergo an MRI with usual standard of care versus those who received the video-based education (Hogan et al., 2018).

**Step 3 | PEACE Appraise Evidence**

After reviewing the evidence by the research team, strengths and weaknesses were listed to assess the quality of the studies. Strengths of the articles appraised included similar patient populations in terms of age, distress, and disposition to preprocedure or test. Limitations included limited sample sizes, use of multimodal approaches, and a single-modal approach that did not include video-based education.

**Step 4 | PEACE Conduct Research & Change Practice**

Based on insufficient evidence in the literature, the team moved forward with conducting research. A randomized controlled study was done, which led to recommendation of a practice change. After reviewing the results of the randomized
controlled study, the nurse manager and charge nurse recommended standardizing patient education utilizing the video-based education tool. The MRI team received education regarding the new practice and support from nursing leadership during implementation. Feedback was positive during implementation, and the practice has received interest in other departments within the institution where the study was conducted.

This education tool was available to patients and their caretakers via a web link that was provided to them during a preprocedure phone call. For those caretakers who did not have access to the internet or did not have the chance to review the video prior to their appointment, an opportunity to view the video was made available to them during the wait time of their scheduled visit. Upon arrival to their appointment, the MRI nurse or technician introduced themselves and gave the caretakers the pre-MRI screening form. At this time, an inquiry was made on whether the patient/caretaker had watched the video. If the patient/caretaker denied having watched the video, a mobile tablet with the video was provided in a quiet waiting area to allow viewing of the educational material prior to the procedure.

**Step 5 | PEACE**

**Evaluation and Dissemination of Findings**

The team shared their research findings with their colleagues in nursing, unit leadership, and medical providers, as well as proposed implementation of the video-based education prior to the MRI exam. The team encouraged and supported the new practice change to improve patient experience and patient outcomes.

This research study was published in the *Journal of Pediatric Nursing* (Hogan et al., 2018).

**Discussion:** This project was presented to participants of the Nursing Research Symposium “Nurses Advancing Science and Improving Patient Care” at NYP Hospital (November 2016) as a poster presentation. The charge nurse who first noted the varying degrees of education provided to patients and their caretakers prior to an MRI was invited and spoke at several research committees and was part of a nurse panel titled “Clinical Research in Action: Lessons Learned.” The research was also presented in the form of a poster at the Morgan Stanley Children’s Hospital’s “Parade of Posters” during Nursing Week of 2017.

**Acknowledgment:** The authors want to recognize the MRI staff and nurse leaders at NYP Hospital who supported the making of the video as well as the randomized controlled study that resulted from this project. Specifically, Mely Chua, MPH, RN; Heidi Jerome, MD; and Steve Barrena, RN.
Exemplar 5
Addressing the Barriers of Certification Through the Certification Ambassador Program

–Warly Remegio, DNP, RN, NPD-BC, CCRN-CSC

NYP Department of Nursing’s vision is to be one of the nation’s leaders in nursing practice, quality, safety, outcomes, nursing research, education, and service excellence. To support this vision, one of the goals is to employ a multitude of strategies, including the validation of the expertise and continued competency of nurses through national board certification. The organization aims to promote and sustain a culture of certification, which plays a significant role in leveraging nursing professional competence, empowerment, and job satisfaction and in improving patient care outcomes (Boyle et al., 2014; Coelho, 2020; Conley, 2019; Perlstein et al., 2014).

This recently implemented evidence-based and performance improvement project utilized the PEACE model with the goal of increasing certification across the organization. This collaborative project focuses on multimodal approaches to address the barriers to certification using the Certification Ambassador Program.

Step 1 | PEACE
Problem Identification

In December 2017, NYP Lower Manhattan Hospital (LMH) had overall certification rates of 22%. In 2018, the goal was to increase the certification rate by 2%. With this goal, the Department of Nursing formed a Certification Steering Committee to address the barriers to certification and to assist the organization in increasing its certification rate. The steering committee was composed of Warly Remegio, DNP, RN, NPD-BC, CCRN-CSC, Program Director for Nursing Professional Development; Reynaldo Rivera, DNP, RN, NEA-BC, FAAN, Director of Nursing for Nursing Research and Innovation; Alexandra Shelley, MS, RN-BC, FNP-BC, Clinical Program Coordinator (clinical nurse at the time); Lisandra Torres, MSN, RNC-OB, C-EFM, Labor and Delivery Patient Care Director (PCD); Beth Taubkin, MS, RN, CPAN, Nurse Educator; and Annalisse Mahon, MSN, RN, Operating Room PCD. The committee conducted a survey to clinical nurses in all the clinical units on their perceived barriers and facilitators to obtaining
certification. There were more than 200 responses to the survey from various clinical areas. Figures 10.1 and 10.2 include the summary of the results.

---

**Figure 10.1** | Clinical nurses’ perceived barriers to certification.

**Figure 10.2** | Clinical nurses’ perceived facilitators to certification.

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Step 2 | PEACE
Evidence Review

Based on the feedback from the clinical nurses, the certification steering committee gathered and reviewed the most recent literature addressing the barriers to certification. The team had utilized nursing library resources like PubMed, CINAHL, EBSCO, and other nursing/healthcare databases in searching for certification programs and initiatives addressing the barriers to obtaining certification. The key terms used included nursing certification, specialty certification initiatives, certification barriers, and facilitators. This search was limited to five years in acute care settings.

Step 3 | PEACE
Appraise Evidence

The steering committee appraised the evidence and took into consideration the outcomes and settings of those studies. Some of the key interventions noted include:

- Providing robust resources for certification within the organization
- Conducting formal review sessions
- Providing certification incentives
- Recognition and rewards
- Conducting informal small group review sessions
- Providing education on the available certification resources
- Leadership and peer-to-peer support

These noted interventions are congruent to the survey results taken by the nurses regarding the facilitators to obtaining certification. With this, the committee developed an innovative program that could bundle evidence-based interventions through the implementation of a Certification Ambassador Program (CAP).
Step 4 | PEACE
Change Practice

The CAP aims to empower nationally board-certified clinical nurses as active ambassadors in fostering a culture of professional excellence through certification of nurses throughout the organization. Certified registered nurses with interest in promoting certification achievement were invited to join a certification ambassador retreat, which was held in October 2018. The nurses were trained as ambassadors, and resources for certification were provided, based on a curriculum developed by the steering committee. The ambassadors also discussed how to address the barriers from the survey and from the literature, which included lack of access to preparations courses, lack of support, lack of rewards and recognition, and discomfort with tests (Perlstein et al., 2014). The CAP was formally implemented later in October with engaged ambassadors from various clinical areas. The Certification Ambassador Champions began promoting unit nurse certification, educating colleagues on the importance of obtaining certification and the resources available for certification, assisting others in obtaining certification through peer-to-peer support, assisting with coordinating unit-based study groups, and answering questions about certification eligibility and other NYP-LMH certification resources. Their role included collaborating with the educators and unit PCDs to champion certification as well as finding ways to recognize and celebrate those who become certified in their respective units. Additionally, the certification steering committee worked collaboratively with Nursing Professional Development in offering various certification review sessions throughout the year within the organization. Clinical nurses were encouraged and supported to attend those classes. The steering committee also worked with the Recruitment, Recognition, and Retention (R3) Committee in holding Certification Day Recognition and celebration events to honor the newly certified nurses, including all those certified nurses who gained their certification in the previous years. During the 2019 ceremony, the R3 Committee recognized nearly 35 newly certified nurses.

Step 5 | PEACE
Evaluation and Dissemination of Findings

This innovative role development strategy was instrumental in cultivating a culture of certification, engagement, and professional excellence throughout the organization.

At the end of 2018, the organization had achieved 35% certification rate, a 4% increase from the previous year. To date, the organization has achieved 40%, with more clinical nurses aspiring to become certified this year. These results are included in Figure 10.3.
Discussion: Eliciting clinical nurses’ feedback is key in creating innovative and relevant strategies to address the barriers to obtaining certification. The ongoing partnership and collaboration between nurse educators, nurse leaders, and clinical nurses strengthens the culture of engagement and commitment to certification. The notable outcome on this initiative made it highly recommended to other NYP campuses to achieve an enterprise-wide increase in certification. Empowering the ambassadors and the newly certified clinical nurses to become leaders and mentors of certification reaffirms our commitment to professional excellence and to excellent nursing and patient care outcomes.

Acknowledgment: Warly Remegio, DNP, RN, NPD-BC, CCRN-CSC; Reynaldo R. Rivera, DNP, RN, NEA-BC, FAAN; Eileen Cater, PhD, RN; and the LMH Certification Steering Committee.

Summary

This chapter describes how clinical nurses identified best practices through supporting evidence to change practice or lack thereof, resulting in the need to conduct research. We hope you find that the PEACE model five-step process is simple and easy to use. The PEACE model can be your guide for successful EBP projects as
well as research, and we encourage you to use this framework to advance nursing science. It is our goal that through sharing these exemplars, you will be confident to break through existing barriers and engage in EBP and research.

Review Questions

1. The integration of best practices, patient preferences, and clinician expertise into patient care is called what?
   **Answer:** Evidence-based practice

2. What is the first step in the utilization of the PEACE model, and what tool may help you further define your clinical question?
   **Answer:** Problem identification, PICO process

3. If you ask a clinical question and are unable to find sufficient evidence in the literature, what is your next step?
   **Answer:** Conduct research

4. When utilizing the PEACE model, what are two important final steps after implementing a practice change?
   **Answer:** Evaluation of the practice change and dissemination of findings

5. What clinical question do you have, and why is it important to nursing practice? Write your own PICO question to start using the PEACE model.
   **Answer:** Open ended question. Readers will create a PICO question and write a response based on their own clinical experience or specialty topic of interest that may lead to an EBP project.

References


INDEX

NOTE: Page reference noted with a t are tables; page references noted with an f are figures

A

AACC (American Nurses Credentialing Center), 2, 142
abstracts, 68f, 72
guidelines, 160
records (PubMed), 52f
submitting, 158–160
accessing
databases, 32 (see also databases)
targeted samples, 122
accounts, NCBI, 52
acronyms, lists of, 31
active stakeholders, 94–95
Add to History option (PubMed), 41f, 44
administration. See management (administration)
AHRQ (Agency for Healthcare Research and Quality), 185–186
alignment, organizational policies, 104
AMA (American Medical Association), 155
American Association of Colleges of Nursing, 1
ANA (American Nurses Association), 33
analysis. See also evaluation
cost-benefit, 146
cost-consequence, 145
cost-effectiveness, 145–146
cost-minimization, 146
cost-utility, 146
data analysis plans, 129–132
data saturation, 132
deductive, 131
inductive, 131
power, 74, 119
samples, 130
statistical analyses, 80–81
AND operator, 39, 42–44, 43f
ANOVA tests, 131
APA (American Psychological Association), 33, 155
APP (Academic Partners Program), 180
appraise evidence, 63
Addressing the Barriers of Certification, 207
Delaying the Newborn Bath, 194
drawing conclusions, 85–86
hypertension outcomes, 64–67
meditation, 64–67
Post-Stroke Depression, 196
Tai Chi to Reduce Falls, 199
using published articles, 67–85
Video-Based Education, 203
approvals
for implementation, 98
IRB (Institutional Review Board), 114–115
APRNs (advanced practice registered nurses), 182
archiving services, 153
articles. See also scholarly writing
appraise the article, 72–81
appraise the evidence, 67–85
cofounders, 78
disseminating work, 151
(see also dissemination)
guidelines for, 155
inclusion/exclusion criteria, 72–73
measurement, 77
outcome measures, 79–80
reading, 69–72
reliability, 75–77, 77f
samples, 74–75
setting, 74–75
statistical analyses, 80–81
submitting (see submitting abstracts)
types of, 151
validity, 75–77, 77f
assessments, quality of evidence, 63
author order, 154–155
authorship, 154–155
autocorrelation research, 118
automatic searching, 45
AXIS tool, 69

B
Beall, Jefferey, 153
Beall’s List of Predatory Journals and Publishers, 153
behavioral sciences, 33
benchmarks, 139–140
beneficence, 7
best practices, measurements, 139
between-group comparisons, 130
biases, 76
information, 75
recall, 75
selection, 75
biomedical databases, 32.
See also databases

Boolean operators, 39, 42–44
building searches, 52

C
case–control groups, 130
categorization
of projects, 9
research, 10
catheter-associated urinary tract infections (CAUTI), 3
celebrating success, 108
Centers for Disease Control and Prevention, 2
Central Limit Theorem, 75
change practice, 93–94
Addressing the Barriers of Certification, 208
building a case for, 96
creating buy-in for, 97
Delaying the Newborn Bath, 194
implementation, 94–101
(see also implementation)
launch meetings, 104–105
maintenance, 140
organizational policy alignment, 104
pilot phases, 105–106
planning implementation, 99–100t
resistance to change, 101–103
sustaining change, 107–108
Tai Chi to Reduce Falls, 199–200
Video-Based Education, 203–204
workflow/work environments, 103–104
Change Teams (EBP), 94–96, 98,
104–106
checklists, interventions, 125
CINAHL (Cumulative Index to Nursing and Allied Health Literature), 30, 33,
37t, 39, 177
controlled vocabularies, 45, 47
headings, 48f
searching, 47f
citations, 51
  managing, 54, 55t
  tracking, 34
clinical experts, examples of, 96
clinical guidelines, 29
clinical practice guidelines, 178
Clinical Queries, 33
clinical research categorization, 10
Clipboard (PubMed), 52
clubs, journals, 179–180
Cochrane Central Register of Controlled Trials, 177
Cochrane Database of Systematic Reviews, 35
Cochrane Library, 30, 35–36, 38t.
See also databases
coefficient alphas, 127
cofounders, 78
collaboration in scholarly writing, 154–155
Collaborative Institution Training Initiative, 114
comparison, 20, 130–131.
See also PICO (population, intervention, comparison, outcome)
complex hypotheses, 116
components (PICO), 17
conclusions, drawing, 85–86
conditions, measurement of, 77
collecting research, 113–114
data analysis plans, 129–132
data collection, 123–129
designing research studies, 115–119
IRB (Institutional Review Board), 114–115
Post-Stroke Depression, 197
research methodology, 119–122
Video-Based Education, 203–204
countries, 158–160
guidelines, 159
INSAR (International Society for Autism Research), 158–159
selecting, 158–159
submitting abstracts, 159–160
consistency, internal, 127
construct validity, 128
controlled vocabularies, 44–49
cost-benefit analysis, 146
cost-consequence analysis, 145
cost-effectiveness analysis, 145–146
cost-minimization analysis, 146
costs
  evaluation of, 142–144
  implementation, 144
  infrastructure, 143
  staff education, 143–144
  cost-utility analysis, 146
counterfeit journals, 153
credentials (AACC), 2
Critical Appraisal Skills Programme, 185
critical appraisal tools, 185
critiques
  results, 84t
  studies, 67–69
Cronbach’s alpha, 76, 127–128
cross-sectional studies, 68

D
data analysis plans, 129–132
databases
  CINAHL (Cumulative Index to Nursing and Allied Health Literature), 30, 33, 37t
  Cochrane Database of Systematic Reviews, 35
  Cochrane Library, 35–36, 38t
  controlled vocabularies, 44
  DynaMed, 35, 38t, 39
  EMBASE, 33–34, 37t
  ERIC (Education Resources Information Center), 33–34, 37t
  filters, 51f
  Google Scholar, 36, 38t, 39
  hybrid, 35–38
JBI Evidence-Based Database, 35, 38
Joanna Briggs Institute (JBI), 35
Medline, 29, 32, 36, 36t–37t
methods, 52
Ovid, 33, 35, 36t–37t
primary literature, 32–34
PsicINFO, 30, 33, 37t
PubMed, 16–17, 21, 29–30, 33, 36, 39
(see also PubMed)
QI evidence review and, 30
search fields, 44–48
search results, 50–53
secondary literature, 34–35
tools, 52
Trip, 36, 38t
t truncation, 49–50
UpToDate, 28, 35, 38t, 39
Web of Science, 34
data collection, 123–129
handling, 126
scales of measurement, 123
types of data, 124
data saturation, 132
deadlines, determining, 105
decision-making, 28, 81–85, 140
deductive analysis, 131
default search page (Medline), 46f
design
hypotheses, 118–119
poster presentations, 161–163
quasi-experimental design, 118
research studies, 115–119, 141t
selecting fonts, 167
details column (PubMed), 45
deviations, calculating, 123
directory of Nursing Journals (INANE), 153
disruptions in workflow, 103
dissemination
Addressing the Barriers of Certification, 208–209
at conferences, 158–160
Delaying the Newborn Bath, 195

elements of, 142
of findings, 151 (see also findings)
oral (podium) presentations, 165–167
peer-reviewed publications, 152–153
poster presentations, 160–164
Post-Stroke Depression, 197–198
 scholarly writing, 154–158
Tai Chi to Reduce Falls, 200–201
Video-Based Education, 204
drawing conclusions, 85–86
DynaMed, 28, 35, 38t, 39

E

EBP (evidence-based practice), 1, 16
APP (Academic Partners Program), 180
appraise the evidence
(see appraise evidence)
APRNs (advanced practice registered nurses), 182
change practice (see change practice)
Change Teams, 94–96, 104–106
clinical practice guidelines, 178
convergence with QI and research, 7–10
costs of, 142–144
courses, 184f–185f
critical appraisal tools, 185
ethical principles in nursing research, 7
evaluation (see evaluation)
evidence review (see evidence review)
fellowship programs, 182–183
as framework for, 2–3
guidelines, 21
implementing, 17
interventions, 139
libraries, 176–178
mentors, 94, 96
NPD (nursing professional development) specialists, 181
nurse managers/leaders, 182
nurse scientists, 180
organizational research infrastructure, 172–176
organizational resources, 178–183
patient safety, 181–182
point-of-care resources, 186–187
practice exemplars, 191–192
quality improvement (QI), 5
quality outcomes, 185–186
real-world example of, 3–4
research, 6–7
resources, 171–172, 172f
SMEs (subject matter experts), 180
SQUIRE (Standards for QUality Improvement Reporting Excellence), 142
steps to, 4
training, 183–185
workshops, 183–185
EBSCO platform, 47
economic evaluation, tools for, 144–146
education
EBP courses, 184f–185f
models, 176
staff education costs, 143–144
elevator speeches, 94, 96, 97f
EMBASE, 33–34, 37t, 177
emergency department (ED), 3, 20–21
empirical hypotheses, 116
Endnote
Desktop, 55f
Online, 55f
EndNote, 156
ERIC (Education Resources Information Center), 33–34, 37t
evidence
appraise the (see appraise evidence) levels, 66
pyramid of, 65f
tools for evaluating, 70f–71f
evidence-based practice. See EBP
evidence-practice gaps, 93–94
evidence review, 28–30
Addressing the Barriers of Certification, 207
Delaying the Newborn Bath, 194
hybrid databases, 35–38
literature searches, 39–50
managing evidence retrieved, 54–56
PICO (see PICO [population, intervention, comparison, outcome])
Post-Stroke Depression, 196
primary literature databases, 32–34
quality improvement (QI), 30
for research studies, 30–31
search results, 50–53
secondary literature databases, 34–35
Tai Chi to Reduce Falls, 199
Video-Based Education, 203
exclusion criteria, articles, 72–73
exempt studies, 114
expedited reviews, 114
experimental research, 118
Explode feature, 48–49
external validity, 128

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F

F1000 Workspace. See Sciwheel
Fall Tailored Interventions for Patient Safety (TIPS), 5
false-negatives, 74
feedback, 107
fields, search, 44–48
filters, 50, 51f
findings
   Addressing the Barriers of Certification, 208–209
   at conferences, 158–160
   (see also conferences)
   Delaying the Newborn Bath, 195
dissemination of, 151
interpreting, 131
oral (podium) presentations, 165–167
peer-reviewed publications, 152–153
poster presentations, 160–164
Post-Stroke Depression, 197–198
scholarly writing, 154–158
Tai Chi to Reduce Falls, 200–201
Video-Based Education, 204
first-generation knowledge, 176
flowcharts, 174f–175f
Focus feature, 48–49
fonts, selecting, 167
frequency, 130
full board reviews, 114
Functional Assessment of Cancer Therapy-General QOL questionnaire (FACT-G), 79, 81
grey literature, 34
groups, comparing, 130–131
guidelines, 2, 139
abstracts, 160
clinical, 29
clinical practice, 178
conferences, 159
EBP (evidence-based practice), 21, 28
following, 155–156
poster design, 161–163
SQUIRE (Standards for QUality Improvement Reporting Excellence), 142

H

handling data collection, 126
headings
   CINAHL (Cumulative Index to Nursing and Allied Health Literature), 48f
   MeSH (Medline's Medical Subject Headings), 47f, 51
health literacy, 49
health related quality of life (HRQOL), 72, 74, 76, 78, 80–81
health science educational literature, 34
high-quality evidence, 28. See also EBP (evidence-based practice)
HIPAA (Health Insurance Portability and Accountability Act), 114
HRQOL (health-related quality of life), 67
hybrid databases, 35–38.
   See also databases
hygiene, 2–3
hypertension outcomes, 64–67
hypotheses
   designing research studies, 118–119
tests, 117–118
types of, 116
ICER (incremental cost-effectiveness ratio), 146
ICMJE (International Committee of Medical Journal Editors), 154
images, 162
implementation, 94
approvals for, 98
change practice, 94–101
costs, 144
identifying stakeholders, 95–98
monitoring, 107
planning, 97, 99–100
strategies for planning, 101
importing terms, 41f, 153
inclusion criteria, articles, 72–73
independent variables (IV), 116
independent variables, testing, 124–129
indexes, 34.  See also databases
indexing, 153
inductive analysis, 131
information bias, 75
infrastructure, organizational research, 172–176
infrastructure costs, 143
INSAR (International Society for Autism Research), 158–159
Institute of Medicine. See National Academy of Medicine
instrument measurements, 140.
  See also measurements
interdependence, 8
internal consistency, 127
internal validity, 128
International Review Board, 30
interpreting findings, 131
interval scales, 123–124
interventions, 19–20.  See also PICO
  (population, intervention, comparison, outcome)
  EBP (evidence-based practice), 139
  self-management, 20
  intervention teams, 125
  interviews, instead of surveys, 131–132
  in-text citations, 54.  See also citations
IRB (Institutional Review Board), 6, 10, 80
  approval, 114–115
  conducting research, 114–115

J–K
jargon, avoiding, 152
JBI (Joanna Briggs Institute), 35, 69
  EBP Database, 28–29
  Evidence-Based Database, 35, 38t
  JBI Systematic Reviews Checklist for Analytical Cross Sectional Studies, 72
  results, 84f
  Journal Citation Reports, 34
  Journal of Autism and Developmental Disorders, 159
  Journal of Nursing Education, 157
  journals, 33.  See also articles
  clubs, 179–180
  counterfeit, 153
  guidelines for, 155
  indexes, 34
  predatory, 153
  selecting, 152–153
  justice, 7
  keywords, 17, 44, 131, 153

L
large-scale pilot phases, 106
Latin American Caribbean Health Sciences Literature, 177
launch meetings, 104–105
leadership
  nurse managers/leaders, 182
research support, 115
support for change practice, 98
Level of Evidence ratings (DynaMed), 35
levels
evidence, 66
significance, 130
libraries as resources, 176–178, 176f
Likert-type rating scales, 123
limits, 50, 76
LINK project, 182
literature
controlled vocabularies, 44
grey, 34
health science educational, 34
primary literature databases, 32–34
reviews, 156–157
search fields, 44–48
unfiltered, 32
literature searches, 39–50
Boolean operators, 42–44
development, 31
processes, 39–41

M

Magnet designation, 2, 142
magnetic resonance imaging (MRI), 8
management (administration)
nurse managers/leaders, 182
support for change practice, 98
managing
citations, 54, 55f
evidence retrieved, 54–56
reference management software, 156
results, 48–49
Mann-Whitney test, 81
manuscripts, 152. See also articles
abstracts (see abstracts)
finalizing, 155
requirements for, 154
submitting (see submitting)
means, calculating, 123, 130
measurements
best practices, 139
concepts that are measurable, 139
of conditions, 77
evaluation, 138 (see also evaluation)
implementation plans, 100f
instruments, 140
of outcomes, 79–80
process measures, 139
scales of measurement, 123
tools, 126–129
meditation, 64–67
Medline, 29, 32, 36–37f, 39, 177
default search page, 46f
Explode feature, 48–49
Focus feature, 48–49
Ovid, 45–46
meetings, launch, 104–105
Mendeley, 55f, 156
mentors (EBP), 94, 96
MeSH (Medline’s Medical Subject
Headings), 44–46
headings, 47f, 51
terms, 51
methods
databases, 52
populations, 119–123
research, 119–122
samples, 119–123
metrics, outcomes, 108
mixed methods studies, 118
mobilization programs, 95, 103
Model for Improvement, 5
models
education, 176
NYP professional practice, 173f
open-access, 153
organizational research
infrastructure, 172
PEACE (see PEACE model)
monitoring implementation, 107
N

National Academy of Medicine, 1
national guidelines, 139.  
See also guidelines
National Healthcare Quality Report, 185
National League for Nursing, 33
NCBI accounts, 52
NDNQI (National Database of Nursing Quality Indicators), 185–186
NLM (National Library of Medicine), 29, 45
nominal scales, 123
NPD (nursing professional development) specialists, 181
NQF (National Quality Forum), 185–186
null hypotheses, 116
nursing
  APRNs (advanced practice registered nurses), 182
databases, 32 (see also databases)
journals, 33
managers/leaders, 182
research design, 141/
strategic plans (NYP), 173f
NYP (NewYork-Presbyterian), 171
EBP courses, 184f–185f
LINK project, 182
nurse scientists, 180
nursing strategic plan, 173f
practice exemplars, 191–192
professional practice model, 173f

AND, 39, 42–44, 43f
Boolean, 42–44
NOT, 39, 42–44
OR, 39, 42–44
oral (podium) presentations, 165–167
ordinal scales, 123
organizational policies, 94
alignment, 104
updates, 108
organizational research infrastructure, 172–176
organizational resources, 178–183
OR operator, 39, 42–44
outcomes, 20–21. See also PICO
(population, intervention, comparison, outcome)
evaluation of, 138–141
hypertension, 64–67
measures, 79–80
metrics, 108
monitoring, 5
quality, 185–186
overlap, 8
Ovid, 33, 35, 36f–37f
default search page, 46f
Medline, 38–39, 45–46

P

passive stakeholders, 94–95
patient safety, 181–182
PDSA (Plan Do Study Act), 5, 140
PEACE model
  flowcharts, 174f–175f
  resources, 177f
peer reviews
  processes, 153
  publications, 152–153
performance, steps of EBP, 3
personalized written asthma action plans, 20
phrases, 131
PICO (population, intervention, comparison, outcome), 39, 177
forming questions, 18–21
literature search development, 31
questions, 16–18, 64, 85–86
pilot phases, 94, 105–106, 108
pilot studies, 75
plagiarism, avoiding, 157–158
Plan Do Study Act (PDSA) cycles, 5
planning
data analysis, 129–132
implementation, 97, 99–100
meetings, 104–105
strategies for, 101
point-of-care resources, 186–187
policies. See organizational policies
populations, 19, 119–123.
See also PICO (population, intervention, comparison, outcome)
posters
presentations, 160–164
design, 161–163
impact of, 164
printing, 163–164
power analysis, 74, 119
PowerPoint, 166. See also presentations
practice change. See change practice
practice exemplars, 191–192
Addressing the Barriers of Certification, 205–209
Delaying the Newborn Bath, 192–195
Post-Stroke Depression, 195–198
Tai Chi to Reduce Falls, 198–201
Video-Based Education, 202–204
predatory journals, 153
predictions, 117
presentations. See also conferences
abstracts, 159
oral (podium), 165–167
posters (see poster presentations)
primary literature databases, 32–34
printing poster presentations, 163–164
problem identification
Addressing the Barriers of Certification, 205–206
Delving the Newborn Bath, 193
forming PICO questions, 18–21
overview of, 15–16
PICO (population, intervention, comparison, outcome), 16–18
Post-Stroke Depression, 195–196
Tai Chi to Reduce Falls, 198–199
Video-Based Education, 202–203
processes
literature searches, 39–41
measures, 139
peer-reviews, 153
research, 126–129
professional governance councils, 179
programs, research, 182–183
progress, monitoring, 107
projects
categorization of, 9
implementation plans, 99
unit-based, 9
protocols, research, 7
PsycINFO, 30, 33, 37
publications, peer-reviewed, 152–153
published articles, 67–85
PubMed, 16–17, 21, 29–30, 33, 36, 39, 156
abstract records, 52
Add to History option, 41
advanced search builder, 40
automatic searching, 45
Boolean operators, 42–44
Clipboard, 52
Details column, 45
filters, 51
importing terms, 41
limits, 50
search features, 39
searching terms, 40, 40
viewing Details, 50
Puerto Rico Health Sciences Journal, 67
purpose of research, 115
p-values, 128, 131
Q

QI (quality improvement), 1, 5
- convergence with EBP and research, 7–10
- evidence review, 30
- real-world example of, 5–6
- research evaluation, 140–141
- qualitative descriptive studies, 117
- qualitative research, 131
- quality
  - of evidence, 63
  - outcomes, 185–186
- quality officers, 181–182
- quantitative descriptive studies, 117
- quasi-experimental design, 118
- queries (PubMed), 33
- questions. See also PICO (population, intervention, comparison, outcome)
  - forming PICO, 18–21
  - PICO (population, intervention, comparison, outcome), 16–18, 39, 64, 85–86, 177
- research, 116
- writing survey, 129

R

randomized controlled trials, 30, 66
- ratio scales, 123–124
- reading articles, 69–72
- recall biases, 75
- recategorization, 8
- recruitment, samples, 122
- reference management software, 156
- reliability, 75–77, 77f, 127–128
- requirements for manuscripts, 154
- research, 6–7
  - activity as, 6f
  - categorization, 10
  - conducting, 113–114
    - (see also conducting research)
  - convergence with EBP and QI, 7–10
  - ethical principles in nursing, 7
  - evaluating studies, 66–67f
  - evaluation, 66–67f, 140–141
  - experimental, 118
  - hypotheses, 117–118
  - methodology, 119–122
  - organizational research
    - infrastructure, 172–176
    - processes, 126–129
    - programs, 182–183
    - purpose of, 115
    - qualitative, 131
    - questions, 116
    - reliability, 127–128
    - samples, 119–123
    - SMEs (subject matter experts), 180
    - studies for evidence review, 30–31
    - testing independent variables, 124–129
    - validity, 128–129
  - resistance to change, 101–103
- resources, 132, 171
  - APP (Academic Partners Program), 180
  - APRNs (advanced practice registered nurses), 182
  - clinical practice guidelines, 178
  - courses (EBP), 184f–185f
  - critical appraisal tools, 185
  - EBP (evidence-based practice), 172f
  - fellowship programs (EBP), 182–183
  - libraries, 176–178, 176f
  - NPD (nursing professional development) specialists, 181
  - nurse managers/leaders, 182
  - nurse scientists, 180
  - organizational, 178–183
  - organizational research
    - infrastructure, 172–176
    - overview of, 171–172
  - patient safety, 181–182
  - PEACE model, 177f
point-of-care, 186–187  
quality outcomes, 185–186  
research support, 115  
supportive, 183–187  
respect for persons, 6–7  
responsibilities for recruiting samples, 122  
results  
critiques, 84b  
managing, 48–49  
searching, 50–53  
strategies, 125  
summaries, 81–85  
reviews  
databases, 35 (see also databases)  
literature, 156–157  
peer reviews (see peer reviews)  
risk officers, 181–182  
CINAHL (Cumulative Index to Nursing and Allied Health Literature), 47f  
EBSCO platform, 47f  
filters, 51f  
keywords, 17, 44, 153  
limits, 50  
literature search development, 31  
literature searches, 39–50  
(see also literature)  
processes, 39–41  
results, 50–53  
terms, 40, 40f  
topics, 29  
secondary literature databases, 34–35  
second-generation knowledge, 176  
selecting  
conferences, 158–159  
fonts, 167  
journals, 152–153  
statistical tests, 82f–83f  
selection bias, 75  
self-management interventions, 20  
setting in articles, 74–75  
sharing feedback, 107  
significance levels, 130  
simple descriptive statistics, 130  
simple hypotheses, 116  
Six Sigma, 5  
small-scale pilot phases, 106  
SMART, 99t  
SMEs (subject matter experts), 180  
social science databases, 32.  
See also databases  
social sciences, 33  
software, managing citations, 55t  
spelling variations, lists of, 31  
SQUIRE (Standards for QUality Improvement Reporting Excellence), 142  
staff education costs, 143–144  
stakeholders  
active, 94–95  
samples  
analyzing, 130  
articles, 74–75  
research, 122  
size calculation, 74–75  
sampling strategies, 73f  
saturation, data, 132  
scales of measurement, 123  
scholarly writing, 154–158  
author order, 154–155  
authorship, 154–155  
avoiding plagiarism, 157–158  
following guidelines, 155–156  
literature reviews, 156–157  
Sciwheel, 55t  
search fields, 44–48  
searching  
automatic, 45  
Boolean operators, 39, 42–44  
building searches, 52  
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engaging, 97
identifying, 95–98
passive, 94–95
standard deviations, calculating, 123
standardization, 5
statistical analyses, 80–81
statistical conclusion validity, 128
statistical tests, selecting, 82/–83f
statistics
analyzing data, 129–130
significance, 131
simple descriptive, 130
steps
to evidence-based practice (EBP), 4
to implementation plans, 100t
Stop Predatory Journals, 153
strategies
intervention teams, 125
for planning, 101
studies. See also research
abstracts, 72 (see also abstracts)
critiquing, 67–69
cross-sectional, 68
designing research, 115–119
exempt, 114
findings (see findings)
Gonzales study, 85
IRB (Institutional Review Board), 80
mixed methods, 118
objectives of, 73
pilot, 75
qualitative descriptive, 117
quantitative descriptive, 117
threats to validity, 128–129
types of, 67–69
submitting abstracts, 158–160
success
celebrating, 108
evaluation, 138 (see also evaluation)
summaries
EBP evidence, 29
results, 81–85
support for research, 115
supportive resources, 183–187
surveys
interviewing participants instead of, 131–132
questions, 129
tools, 140
survivors, 79
sustaining change, 107–108
synonyms, lists of, 31
systematic reviews, 30, 35

T
targeted samples, accessing, 122
taxonomy, 44
team members
identifying, 95–98
implementation plans, 99t
intervention teams, 125
research support, 115
terms (MeSH), 51
testing
ANOVA, 131
hypotheses, 117–118
independent variables, 124–129
selecting statistical tests, 82/–83f
text, selecting fonts, 167
third-generation knowledge, 176
threats to validity, 128–129
timelines, 99t, 125, 132
timing interventions, 125
tone of manuscripts, 152
tools
AXIS, 69
critical appraisal, 185
critiquing studies, 67–69
databases, 52
for economic evaluation, 144–146
evaluating evidence, 70t–71t
JBI (Joanna Briggs), 69
JBI Systematic Reviews Checklist for Analytical Cross Sectional Studies, 72
measurements, 126–129
results, 84f
surveys, 140 (see also surveys)
validity of, 79
topics, searching, 29
tracking citations, 34
training, 114, 184f–185f
intervention teams, 125
staff education costs, 143–144
training (EBP), 183–185
translating evidence, 93.
See also change practice
Trip, 36, 38f
truncation, 49–50
type I errors, 119
types
of articles, 151
of biases, 75
of data, 124
of errors, 74, 74f–75f
of hypotheses, 116
of planned EBP project evaluations, 139
of studies, 67–69
of validity, 128

U
unfiltered literature, 32
unit-based projects, 9
unplanned clinic visits, 21
updates, organizational policies, 108
UpToDate, 28, 35, 38f, 39
U.S. Department of Education, 34
U.S. Department of Health & Human Services, 10
Using Sources Effectively: Strengthening Your Writing and Avoiding Plagiarism (Harris), 157

V
validity, 75–77, 77f, 128–129
variables, testing independent, 124–129
vocabularies
controlled, 44–49
managing results, 48–49
voice of manuscripts, 152

W–Z
Web of Science, 34
within-group comparisons, 130
work environments, 103–104
workflow, 103–104
workshops (EBP), 183–185
World Health Organization, 2
writing
scholarly (see scholarly writing)
submitting, 158 (see also submitting)
survey questions, 129
Writing for Publication in Nursing (Oermann & Hays), 151

YouTube, 156

Zotero, 156