

EVIDENCE-BASED PRACTICE FOR NURSES

**APPRAISAL AND APPLICATION
OF RESEARCH**

THE PEDAGOGY

Evidence-Based Practice for Nurses: Appraisal and Application of Research, Fifth Edition, drives comprehension through various strategies that meet the learning needs of students while also generating enthusiasm about the topic. This interactive approach addresses different learning styles, making this the ideal text to ensure mastery of key concepts. The pedagogical aids that appear in most chapters include the following:

CHAPTER OBJECTIVES

At the end of this chapter, you will be able to:

- < Define *evidence-based practice* (EBP).
- < List the three components of EBP.
- < Distinguish EBP from research utilization.
- < List sources of evidence for nursing practice.
- < Identify barriers to the adoption of EBP and pinpoint strategies to overcome them.
- < Explain how the process of diffusion facilitates moving evidence into nursing practice.
- < Explain the purpose of the hierarchy of evidence.
- < Discuss the development of the hierarchy of evidence in health care.
- < Distinguish among the types of evidence found in the seven levels of the hierarchy of evidence.
- < Explain why nurses have an ethical obligation to maintain an evidence-based practice.
- < Identify ethical concerns that may be raised when implementing EBP.

KEY TERMS

barriers	evidence-based practice (EBP)	quality improvement (QI) projects
case-control studies	hierarchy of evidence	quantitative research
case series studies	innovation	quasi-experimental designs
case study	integrative reviews	randomized control trials (RCTs)
clinical practice guidelines (CPGs)	laggards	research utilization
cohort studies	meta-analysis	summaries
concept analysis	metasynthesis	synopses
correlational designs	mixed methods design	systematic review
descriptive survey designs	model of diffusion of innovations	theory
early adopters	narrative reviews	
EBP project	qualitative research	

Chapter Objectives

These objectives provide instructors and students with a snapshot of the key information they will encounter in each chapter. They serve as a checklist to help guide and focus study.

Key Terms

Found in a list at the beginning of each chapter and in bold within the chapter, these terms will create an expanded vocabulary in evidence-based practice and research.

Critical Thinking Exercises

As an integral part of the learning process, the authors present scenarios and questions to spark insight into situations faced in practice.

1.1 EBP: What Is It? 9



CRITICAL THINKING EXERCISE 1-2

Consider your last clinical experience. How much of your practice was based on scientific research? What other sources of evidence did you use? Divide a circle into sections (like a pie chart) to show how much influence each of the sources of evidence had on the patient care you provided.

implemented at their institution (White-Williams et al., 2013). Although this shows a significant improvement over 7 years, one must keep in mind that the inclusion of only a Magnet facility may present a bias, because to earn Magnet Recognition EBP must be inherent in the organization. Three years later, this was confirmed by Warren et al. (2016), who compared the perception of nurses who worked at Magnet facilities with those who did not. They found that nurses working at Magnet hospitals thought that their organizations were equipped to implement EBP. They also found that younger RNs who were newer to practice were more likely to have positive beliefs about EBP. However, it remains challenging to shift the attitudes of nurses about EBP. In 2020, Muddermann et al. studied nurses in a rural hospital. After eight educational sessions over 5 months, they found that there was a statistically significant increase in participant knowledge about EBP, but there was no change in attitude regarding EBP. This shows that although there has been more acceptance of EBP over the past 15 years, EBP as an innovation has not been fully adopted.

Overcoming Barriers

It has been shown that as EBP has evolved, barriers have remained unchanged. Studies have demonstrated that the reasons nurses do not draw on research are related to individual factors, organizational factors, and research-related factors. Individual factors are those characteristics that are inherent to the nurse. Major barriers to nurses using research findings at the point of care include nurses not valuing research, nurses being resistant to change, and lack of time and resources to obtain evidence (Cebeci et al., 2019). Organizational factors are related to administration, resources, facilities, and culture of the system. Factors can include organizational management failing to embrace EBP (Melnyk et al., 2016) and lack of institutional support, such as financial or release time. Research-related factors can include the communication gap between researcher and clinician, the technical writing associated with research reports, and lack of dissemination of research findings (Cebeci et al., 2019).

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fruitful for the development of nursing knowledge. Schmelzer (2006) encouraged nurses to collaborate with researchers to find answers for practice problems. Waterman and associates (1995) also supported closer working relationships among nurses, researchers, and theorists. It is quite reasonable for nurses to be members of formal research teams as content experts. Another way to increase collaboration is for more researchers and theorists to engage in practice.



TEST YOUR KNOWLEDGE 6-1

Fill in the blanks

1. A concept at the abstract level is comparable to a(n) _____ at the operational level.
2. A(n) _____ at the abstract level is comparable to a hypothesis at the operational level.
3. Quantitative research typically _____ theory, whereas qualitative research typically _____ theory.

True/False

4. Theory, research, and practice should be developed in isolation.
5. Nurses are encouraged to collaborate with researchers and theorists to expand nursing knowledge.
6. Concepts of the metaparadigm of nursing include nursing, health, disease, social interaction, and persons.

How did you do? 1. variable, 2. proposition, 3. tests, builds, 4. F, 5. T, 6. F

6.2 Keeping It Ethical

At the end of this section, you will be able to:

- < Discuss how honoring prior work ethically builds nursing knowledge.

Students of any discipline are taught the body of knowledge that has been built over time, including the origins of the ideas that comprise that body of knowledge. As individuals contribute to the body of knowledge, credit should be given to those on whose work they are building.

FYI

Credit must be given for ideas built on earlier work as well as for new ideas generated by challenging old ideas.

Knowledge in a discipline is built in small steps that in time mark a long and fruitful journey of discovery.

FYI

Quick tidbits and facts are pulled out in the chapter margins to highlight important aspects of the chapter topic.

Test Your Knowledge

These questions serve as benchmarks for the knowledge acquired throughout the chapter.

ensuring patient safety. Having scientific evidence is the best way to ensure that nursing interventions are safe. In turn, nurses have an obligation to maintain an evidence-based practice.

The connection between EBP and ethics can also become evident when practice changes are made, because ethical concerns may arise. One ethical concern may be that although the change in practice benefits some patients, others may not benefit. Ethical dilemmas may also arise when the outcomes that result from the practice change unintentionally lower the quality of care. Another potential ethical concern is when an EBP project is really a research project and is being conducted without the required approval of an ethics board (Melnyk & Fineout-Overholt, 2019).

RAPID REVIEW

- » EBP involves: (1) practice grounded in research evidence integrated with theory, (2) clinician expertise, and (3) patient preferences.
- » Tradition, authority, trial and error, personal experiences, intuition, borrowed evidence, and scientific research are sources of evidence.
- » Individual-, organizational-, and research-related barriers can prevent adoption of EBP.
- » Innovations are adopted by the diffusion of the innovation over time through communication channels among the members of a social system.
- » For nurses to use EBP to improve patient care, they must be committed to being early adopters of innovations.
- » Nurses use the hierarchy of evidence to rank evidence from strongest to weakest.
- » The hierarchy of evidence has seven levels of evidence. The strongest evidence is in Level I, and the weakest evidence is in Level VII.
- » When looking for the best evidence, nurses should begin looking for the types of evidence found at the top of the hierarchy.
- » Evidence at all levels of the hierarchy has value and may contribute to nursing practice. In addition to determining its level, nurses must appraise the quality evidence.
- » Nurses have an ethical obligation to maintain an evidence-based practice.

Rapid Review

This succinct list at the end of the chapter compiles the most pertinent and key information for quick review and later reference.

Apply What You Have Learned

This outstanding feature applies newly acquired knowledge to specific evidence-based practice scenarios and research studies. Students are guided through the EBP process as they read and analyze different types of evidence, make a practice decision, and plan for implementing a practice change to improve hand hygiene.

Apply What You Have Learned

So that you can better understand EBP, throughout the text you will be guided through a series of exercises designed to involve you in the EBP process. The clinical problem used in this exercise is hand hygiene. You will search for articles on your own and critique the evidence to decide which best practice to recommend. You will also design a policy and evaluate outcomes. By actively engaging in these exercises, you will be well prepared to be a leader who successfully moves evidence to the point of care.

Sign into the Joanna Briggs Institute and retrieve the following summary:

- » Marin, T. (2020). Evidence summary. Hand hygiene compliance: Interventions in healthcare settings. Joanna Briggs Institute EBP Database. [3BI@Ovid.3BI1549](https://doi.org/10.1016/j.jbr.2019.03.013)

Also retrieve from CINAHL or PubMed this systematic review.

- » Seo, H.-J., Sohm, K.-Y., Chang, S. O., Chung, S. K., Won, J. S., & Choi, M.-J. (2019). Interventions to improve hand hygiene compliance in emergency departments: A systematic review. *Journal of Hospital Infection*, 102, 394-406. <https://doi.org/10.1016/j.jhin.2019.03.013>.

After reading this evidence, how might you change your hand hygiene practices?

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Case Examples

Found in select chapters, these vignettes illustrate research questions and studies in actual clinical settings and provide critical thinking challenges.

are relevant for practice, either at the level of basic research or at the level of applied research. Some researchers claim their work is nursing research because the researcher is a nurse or because the researcher studied nurses. But it is the focus on nursing practice that defines nursing research. The mere fact that the research was conducted by a nurse or that nurses were studied does not necessarily qualify the research as nursing research. Historically, and even today, approaches to practice are often based on "professional opinion" when research is absent. **Case Example 6-1** provides such a historical illustration. It also demonstrates the value of systematically studying the effects of interventions.

This case example clearly illustrates how knowledge changes over time and how ineffective practices are replaced with innovations. What is

CASE EXAMPLE 6-1

Early Methods of Resuscitation: An Example of Practice Based on Untested Theory

Throughout the past century, nursing students have been taught how to resuscitate patients who stop breathing. As early as 1912, students were taught a variety of methods for providing artificial respiration. It was theorized that moving air in and out of the lungs would be effective. One of these techniques was designed for resuscitating infants. Byrd's method of infant resuscitation (Goodnow, 1919) directed the nurse to hold the infant's legs in one hand, and the head and back in the other. The nurse would then double the child over by pressing the head and the knees against the chest. Then the nurse would extend the knees to undouble the child. This would be repeated, but "not too rapidly" (Goodnow, 1919, p. 305). At intervals, the nurse would dip the child into a mustard bath in the hope that this would also stimulate respiration. The nurse would continue this until help arrived.

Other methods of artificial respiration taught included Sylvester's method for adults (Goodnow, 1919). The patient was placed flat on his back. The nurse would grasp the patient's elbows and press them close to his sides, pushing in the ribs to expel air from the chest. The arms would then be slowly pulled over the head, allowing the chest to expand. The arms would be lowered to put pressure on the chest, and the cycle was then repeated. This was to be done at the rate of 18 to 20 cycles per minute.

By 1939, postmortem examinations after unsuccessful resuscitations showed veins to be engorged while the arteries were empty (Harmer & Henderson, 1942). Although this evidence indicated other factors needed to be considered, resuscitation techniques continued to focus only on the respiratory system. The same methods of resuscitation that were in use in 1919 were still being taught in 1942. Although students were still being taught the Sylvester method, they were also learning the new "Schäfer method" (Harmer & Henderson, 1942, p. 940). This method involved placing the patient in a prone position. The nurse would straddle the thighs, facing the patient's head, and alternately apply and remove pressure to the thorax.

Eventually, it was noted that what was believed to be best practice was not effective. Results of postmortem examinations indicated that something was missing in the techniques, and therefore research was begun to determine best practice. Today, nursing students are taught cardiopulmonary resuscitation techniques based on updated research and theories.

7.5 Keeping It Ethical

At the end of this section, you will be able to:

- < Discuss ethical issues related to study validity.

Researchers are obligated to conduct well-constructed studies. If a study does not have adequate controls in place, then the researcher has wasted valuable resources such as time, money, and participant volunteerism. Furthermore, failure to control threats to study validity jeopardizes the integrity of the findings. When findings are flawed, patient safety could be affected if practice is changed based on faulty evidence. Researchers should make every effort to implement strategies that enhance control and manipulation while reducing bias.

Implementing strategies to improve validity needs to be balanced with protecting the rights of human participants. For example, when individuals are recruited for a study that involves two or more groups, they often express a desire to choose their group assignment. Allowing participants to select their group assignment introduces the threat of selection bias. Most researchers would opt to randomly assign participants to groups to reduce this threat. Therefore, it is important for the researcher to inform participants during the recruitment process that they will not be allowed to choose their own groups. Doing so allows individuals to make informed decisions about participating. If a researcher tries to improve construct validity by assessing for a wide variety of confounding variables, could that assessment lead a participant to respond in such a way that a legal (e.g., possibility of being arrested) or employment risk is created?

When appraising a research article, it is important to determine if the researcher has followed an acceptable standard of research ethics. This is done by noting if the researcher has clearly indicated that the study was approved by an institutional review board (IRB). An IRB is an oversight committee, governed by federal regulations, that has the institutional responsibility of reviewing and approving all research prior to the start of the study. The purpose of the IRB is to protect the rights and welfare of research participants such that risks to participants are minimized. IRB oversight helps ensure that only ethically and scientifically valid research is conducted.

FYI

Researchers are obligated to conduct well-constructed studies. If a study does not have adequate controls in place, then the researcher has wasted valuable resources such as time, money, and subject volunteerism.

Keeping It Ethical

Relevant ethical content concludes each chapter to ensure that ethics are a consideration during every step of the nursing process.

FIFTH EDITION

EVIDENCE-BASED PRACTICE FOR NURSES

APPRAISAL AND APPLICATION OF RESEARCH

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22637-9

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Cover Design: Michael O'Donnell
Text Design: Michael O'Donnell
Senior Media Development Editor: Troy Liston
Rights & Permissions Manager: John Rusk
Rights Specialist: Benjamin Roy
Cover Image (Title Page, Part Opener, Chapter Opener): ©
Printing and Binding: LSC Communications

Library of Congress Cataloging-in-Publication Data

Names: Schmidt, Nola A., editor. | Brown, Janet M. (Janet Marie), 1947-
editor.

Title: Evidence-based practice for nurses : appraisal and application of
research / [edited by] Nola A. Schmidt, Janet M. Brown.

Description: Fifth edition. | Burlington, MA : Jones & Bartlett Learning,
[2022] | Includes bibliographical references and index.

Identifiers: LCCN 2021012210 | ISBN 9781284226324 (paperback)

Subjects: MESH: Nursing Research--methods | Evidence-Based Nursing

Classification: LCC RT81.5 | NLM WY 20.5 | DDC 610.73072--dc23

LC record available at <https://lcn.loc.gov/2021012210>

6048

Printed in the United States of America

25 24 23 22 21 10 9 8 7 6 5 4 3 2 1

DEDICATION

To the frontline nurses who so courageously served during the pandemic. You are our heroes!

—*N. A. S.*

To my husband, my children, and my granddaughters and grandson, who enrich my life in every way.

—*J. M. B.*

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PREFACE

We are most pleased to offer the *Fifth Edition* of this text. There are many changes in this new edition. First, we'd like to begin by thanking our “retiring” authors: Jan Dougherty, Moria Fearncombe, Carol Long, Patricia Mileham, Cynthia Russell, Marita Titler, Ann White, and Maria Young. All of them have been with us since the beginning, and their contributions to the textbook have been invaluable. We also want to give a shout out to our new authors: Maha Albdour, Seung Hee Choi, Alesha Dempsey-McClanahan, Hallie Orgel, Julia Paul, Stephanie Shulte, and Scarlet Spain. We are excited to be collaborating with a new generation of nurse scholars. And we remain indebted to our continuing authors who have faithfully updated their chapters: Susie Adams, Amy Buckenmeyer, Diane Forsyth, Emily Griffin, Elsabeth Jensen, Kristen Mauk, and Rosalind Peters.

As the COVID-19 pandemic has shown us, the need for developing an evidence-based practice is critical for health care. Because COVID-19 was an emerging disease, healthcare providers had limited evidence when caring for patients, so they often resorted to trial and error or basing decisions on treatments for other diseases. It was critical to quickly establish an evidence base to reduce morbidity and mortality rates. Development of vaccines became an international effort and occurred in record time. This pandemic serves as an exemplar of how science is a process of describing, explaining, and predicting so that innovations are moved to the point of care. This pandemic also illustrates that EBP content is more important than ever for ensuring that nursing students are workplace-ready.

For this revision, we have updated the Apply What You Have Learned feature. The topic remains adherence with hand hygiene, because this continues to be a clinical problem involving all healthcare providers in all settings and significantly impacts patient outcomes. In this edition, we added more types of current evidence. This feature continues to unfold in a manner that integrates chapter content with each step of the EBP process. Concrete strategies allow readers to master competencies needed to perform these activities in the clinical setting. We are pleased to have made available to faculty recommended grading rubrics for both the summary grid and EBP project poster, as well as detailed instructions for the summary grid. We've also added poster templates that students can use as guides for developing their work. These can be used as presented or adapted as needed. We think you will find these newly added rubrics especially helpful, and you may want to consider including them in assignment instructions for students.

In response to user feedback, we reorganized information about EBP and research by dividing that content into two chapters. Chapter 1 focuses exclusively on EBP, while Chapter 2 contains much of the same content about research that was previously in Chapter 1.

Throughout the text, we tried to consistently and succinctly emphasize the need to appraise evidence for both strength and quality. We intentionally eliminated the 5 Ss model because that content seemed to place students at odds with the hierarchy of evidence. Therefore, we integrated the 5 Ss in our revision of the hierarchy of evidence to include evidence such as summaries and synopses. We also noted that students struggle with determining the strength of evidence not listed on the hierarchy of evidence; therefore, evidence such as clinical practice guidelines, EBP projects, and quality improvement projects was added to the hierarchy of evidence. Based on feedback, we placed correlation studies in the next higher level. We hope that faculty and students will find this version of the hierarchy of evidence more useful than the previous version.

In addition to teaching students about the strength of evidence, more emphasis was placed on evaluating the quality of evidence. In Chapter 15, content about tools for appraising the quality of evidence was added. An excellent addition is the provision of websites so that students can access tools such as the AGREE II, CASP, and JBI.

Another notable change is that the sampling chapter now appears before the chapter about data collection. We made this change because we found that the new order allowed for better scaffolding of content. In response to feedback, content about mixed methods was added to Chapter 10. The new content provides a useful overview of mixed methods without overwhelming undergraduate students.

The American Association of Colleges of Nursing (AACN) charges nursing programs with preparing baccalaureate nurses with the basic understanding of the processes of nursing research. This book includes content related to methods, appraisal, and utilization, which is standard in many other texts. Furthermore, the AACN expects BSN-prepared nurses to apply research findings from nursing and other disciplines in their clinical practice. We have kept the model of diffusion of innovations (Rogers, 2003) as the framework, which gives readers a logical and useful means for creating an EBP. Readers are led step-by-step through the process of examining the nursing practice problem of hand hygiene using the innovation–decision process (IDP). It is recommended that faculty use this text with students to guide them through assignments that might effect actual change in patient care at a healthcare facility. Schmidt and Brown (2007) described this teaching strategy more fully. Because students typically express that research content is uninteresting and lacks application to real life, we have tried to create a textbook that is less foreboding and more enjoyable through the use of friendly language and assignments to make content more pertinent for students.

The primary audience for this textbook is baccalaureate undergraduate nursing students and their faculty in an introductory nursing research course. All baccalaureate nursing programs offer an introductory research course, for which this text would be useful. Because the readership has grown, we recognize that nursing graduate programs are also using this textbook.

This edition continues to follow the five steps of the IDP: knowledge, persuasion, decision, implementation, and confirmation. This organizational approach allows the research process to be linked with strategies that promote progression through the IDP. The chapters follow a consistent format: Chapter Objectives, Key Terms, major content, Test Your Knowledge, Keeping It Ethical, Apply What You Have Learned, Rapid Review, and References. Critical thinking exercises and user-friendly tables and charts are interspersed throughout each chapter to allow readers to see essential information at a glance. Textbook users will be pleased to find more consistency between chapters in this edition. The revised hierarchy of evidence is printed on the inside of the back cover for easy reference, and questions to consider when appraising nursing studies are on the last page.

As a learning strategy, chapters are subdivided so that content is presented in manageable “bites.” Students commented that they liked this feature. As in previous editions, chapters begin with a complete list of all objectives addressed in the chapter. Objectives are repeated for each subsection and are followed by content, and each subsection ends with the feature Test Your Knowledge. Multiple-choice and true-or-false questions, with an answer key,

reinforce the objectives and content. Chapters also include Critical Thinking Exercises that challenge readers to make decisions based on the content. Users will find significant alterations to the digital resources available to readers.

We continue to refine the Apply What You Have Learned feature to showcase a variety of current evidence. Students are provided with directions so that they can search for evidence themselves, thereby reinforcing the search skills that will be required of baccalaureate-prepared nurses, who need to keep up with the ever-changing healthcare environment. For readers' convenience, we have included a table here containing the evidence used throughout the Apply What You Have Learned exercises.

Citation	Chapters	Search Terms
Articles to Search in CINAHL		
Baloh, J., Thom, K. A., Perencevich, E., Rock, C., Robinson, G., Ward, M., Herwaldt, L., & Schacht Reisinger, H. (2018). Hand hygiene before donning nonsterile gloves: Healthcare workers' beliefs and practices. <i>American Journal of Infection Control</i> , 47, 492-497. https://doi.org/10.1016/j.ajic.2018.11.015	10, 11, 13, 16	Baloh (author) "hand washing" (title)
Birgili, F., Baybuga, M., Ozkoc, H., Kuru, O., van de Mortel, T., & Tümer, A. (2019). Validation of a Turkish translation of the Hand Hygiene Questionnaire. <i>East Mediterranean Health Journal</i> , 25(5), 299-305. https://doi.org/10.26719/emhj.18.039	5, 11, 12, 13, 16	Birigli (author) "Turkish translation" (all fields)
Butenko, S., Lockwood, C., & McArthur, A. (2017). Patient experiences of partnering with healthcare professionals for hand hygiene compliance: A systematic review. <i>Joanna Briggs Institute, JBI Database of Systematic Reviews and Implementation Reports</i> , 15(6), 1645-1670. https://doi.org/10.11124/JBISRIR-2016-003001	5, 14, 16	Butenko (author) "hand hygiene compliance" (all fields)
Chhapola, V., & Brar, R. (2015). Impact of an educational intervention on hand hygiene compliance and infection rate in a developing country neonatal intensive care unit. <i>International Journal of Nursing Practice</i> , 21, 486-492. https://doi.org/10.1111/ijn.12283	5, 9, 11, 13, 16	Chhapola (author) "Educational intervention" (all fields)

Citation	Chapters	Search Terms
Articles to Search in CINAHL		
Gomez, M. J. (2018). Handwashing adherence—Is that really our goal? <i>Nephrology Nursing Journal</i> , 45(4), 393–394.	5, 17	Gomez (author) “hand washing” (title)
Gould, D. J., McKnight, J., Leaver, M., Keene, C., Gaze, S., & Pursell, E. (2020). Qualitative interview study exploring front line managers’ contributions to hand hygiene standards and audit: Local knowledge can inform practice. <i>American Journal of Infection Control</i> , 48, 480–484. https://doi.org/10.1016/j.ajic.2020.02.005	10, 11, 13, 16	Gould (author) “Frontline” (all fields)
Karaoglu, M. K., & Akin, S. (2018). Effectiveness of hygienic hand washing training on hand washing practices and knowledge: A nonrandomized quasi-experimental design. <i>Journal of Continuing Education in Nursing</i> , 49(8), 360–371. https://doi.org/10.3928/00220124-20180718-07	2, 5, 7, 8, 11, 13, 16	Karaoglu (author) Akin (author)
Løyland, B., Wilmont, S., Hessels, A., & Larson, E. (2016). Staff knowledge, awareness, perceptions, and beliefs about infection prevention in pediatric long-term care facilities. <i>Nursing Research</i> , 65(2), 132–141. https://doi.org/10.1097/NNR.0000000000000136	2, 5, 11, 13, 16	Wilmont (author) Hessels (author) “Nursing Research” (JN Publication)
Oh, H. S. (2019). Knowledge, perception, performance, and attitude regarding hand hygiene and related factors among infection control nurses in South Korea: A cross-sectional study. <i>American Journal of Infection Control</i> , 47, 258–263. https://doi.org/10.1016/j.ajic.2018.09.006	5, 8, 11, 13, 16	Oh (author) “nurses in South Korea” (all fields)
Sadule-Rios, N., & Aguilera, G. (2017). Nurses’ perceptions of reasons for persistent low rates in hand hygiene compliance. <i>Intensive and Critical Care Nursing</i> , 42, 17–21. https://doi.org/10.1016/j.iccn.2017.02.005	5, 7, 8, 11, 13, 16	Sadule-Rios (author) 2017 (publication date)
Seo, H.-J., Sohng, K.-Y., Chang, S. O., Chung, S. K., Won, J. S., & Choi, M.-J. (2019). Interventions to improve hand hygiene compliance in emergency departments: A systematic review. <i>Journal of Hospital Infection</i> , 102, 394–406. https://doi.org/10.1016/j.jhin.2019.03.013	1, 5, 11, 13, 16	Seo (author) “Interventions to improve hand hygiene” (all fields)

Citation	Chapters	Search Terms
Articles to Search in CINAHL		
Xiong P., Zhang, J., Wang, X., Wu, T. L., & Hall, B. J. (2017). Effects of a mixed media education intervention program on increasing knowledge, attitude, and compliance with standard precautions among nursing students: A randomized control trial. <i>American Journal of Infection Control</i> , 45, 389-395. http://dx.doi.org/10.1016/j.ajic.2016.11.006	5, 8, 11, 13, 16	Xiong (author) “American Journal of Infection Control” (JN publication)
Obtain from JBI		
Marin, T. (2020). Evidence summary. Hand hygiene compliance: Interventions in healthcare settings. <i>The Joanna Briggs Institute EBP Database</i> , JBI@Ovid. JBI1549.	1, 5, 11, 13, 16	“hand hygiene compliance”

Sources From the Web	Chapter(s)	URLs
Purdue University Leadership Self-Assessment	17	https://www.purdue.edu/meercat/ldp/wp-content/uploads/sites/2/2018/08/LSA.pdf
World Health Organization	4, 5	http://www.who.int/gpsc/5may/Hand_Hygiene_Why_How_and_When_Brochure.pdf?ua=1
World Health Organization	6	https://apps.who.int/iris/bitstream/handle/10665/44102/9789241597906_eng.pdf;jsessionid=3D5DCC90BDA2A6791674565CF616C646?sequence=1

Available in the Digital Resources		
Resource	Chapter	
Search Strategy Worksheet PICOT-Style Summary Grid for Students Traditional Summary Grid for Students PICOT-Style Summary Grid for Faculty Traditional Summary Grid for Faculty Instructions and Grading Rubric for PICOT Style Summary Grid	5	Visit this text’s accompanying digital resources to find links to these materials.

Available in the Digital Resources		
Resource	Chapter	
Policy Format 1 Example Policy Format 1 Template Policy Format 2 Example Policy Format 2 Template	15	Visit this text's accompanying digital resources to find links to these materials.
Poster guidelines for EBP Project Grading Rubric for EBP Project Poster Example of Acceptance Letter	19	Visit this text's accompanying digital resources to find links to these materials.

We hope that the variety of strategies incorporated in this textbook will meet your teaching and learning needs, while generating enthusiasm about EBP.

REFERENCES

Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). Free Press.

Schmidt, N. A., & Brown, J. M. (2007). Use of the innovation–decision process teaching strategy to promote evidence-based practice. *Journal of Professional Nursing*, 23, 150–156.

ACKNOWLEDGMENTS

As with every endeavor, many individuals have made accomplishing our goal a reality. Special thanks are in order for Jones & Bartlett Learning staff, especially Christina Freitas, Kelly Sylvester, and Benjamin Roy, who offered invaluable editorial assistance. We are grateful for the ways Jones & Bartlett has developed and marketed the book over the five editions, and we are delighted with how the use of the book has surpassed our expectations. This success can be attributed to nursing faculty who are also committed to our vision of creating nurses who base their practices on evidence. Finally, we are indebted to our families, who afforded us the time to complete this book. They provided invaluable support throughout the process.

