

## Chapter 2: Evidence-Based Nursing Practice

### LEARNING OUTCOMES

1. Summarize the importance of evidence-based practice in the field of nursing
2. Differentiate between research utilization and evidence-based nursing practice
3. Discuss the importance of the Cochrane Collaboration and the Cochrane Nursing Care Field to evidence-based practice
4. Explain the role of the Agency for Healthcare Research and Quality in evidence-based practice
5. Summarize the roles of evidence-based nursing practice centers.

### KEY CONCEPTS

1. Nurses are an integral part of healthcare and encouraged to use new forms of evidence, new interprofessional team efforts, and new fields of science to complement their evidence-based practice.
2. Research utilization is a more narrow term than evidence-based nursing practice. Research utilization involves the use of results from specific research studies that concentrate on one clinical problem. Knowledge is accumulated over time and works its way into practice. Evidence-based nursing practice is broader in scope. Whereas nursing research utilization begins with existing research that needs to be implemented in practice, evidence-based nursing practice begins with a clinical problem for which there is no immediate apparent solution. Nurses then seek to find information about the best solution for this specific problem.
3. The Cochrane Collaboration is an international nonprofit organization supporting evidence-based practice by preparing systematic reviews of healthcare interventions, known as the *Cochrane Reviews*. A systematic review is a rigorous scientific approach that combines results from a group of research studies and looks at the studies as a whole to summarize them, while focusing on a single area of interest. There are 52 Cochrane Review Groups, each focusing on a specific topic area.
4. The Cochrane Library is the medium used to publish the work of the Cochrane Collaboration. It consists of six databases that contain evidence to promote decision making in healthcare. A seventh database provides information about the groups in the Cochrane Collaboration.
5. The Cochrane Database of Systematic Reviews includes *Cochrane Reviews* based on the best available information about healthcare interventions. These reviews provide evidence for and against the effectiveness and appropriateness of treatments, which include medications, surgery, and educational programs.

6. Cochrane Centers are located through the world and all share the responsibility for helping coordinate and support the Cochrane Collaboration. Each center is unique and reflects the interests of the individuals associated with that particular center.
7. The Cochrane Nursing Care Field (CNCF) has a mission to improve health through (a) increasing the use of the Cochrane Library by nurses and others; (b) engaging nurses and others involved in delivering, leading, or researching nursing care with the Cochrane Collaboration; and (c) supporting the Cochrane Collaboration and its role in providing an evidence base for nursing care. Membership is open to consumers of nursing care, nurses, formal and informal caregivers, other healthcare professionals, researchers, and others involved in the delivery of nursing care.
8. The Agency for Healthcare Research and Quality (AHRQ) is the health services research branch of the U.S. Department of Health and Human Services (HHS). The AHRQ serves as a major source of funding and technical assistance for health services research and training. The agency works with public and private organizations to build a knowledge base for healthcare.
9. Evidence-based practice centers (EPCs) develop evidence reports and technology assessments on topics related to clinical, social and behavioral science, economics, and other healthcare organization and delivery issues. Topics for consideration are nominated by professional societies, insurers, employers, and patient groups. Their goal is to improve the quality, effectiveness, and appropriateness of health care delivery in the United States.
10. The U.S. Preventive Services Task Force (USPSTF) is the leading independent panel of private-sector experts in the area of primary care and preventive services. The USPSTF conducts systematic reviews on clinical preventative services and the results of their reviews are used in making sets of recommendations for use in primary care settings. The USPSTF then reviews the evidence and determines the benefits and harms for each preventive service by a grading system.
11. The National Guideline Clearinghouse (NGC) is a database of evidence-based clinical practice guidelines and related guidelines. It publishes practice guidelines.
12. Evidence-based practice centers in nursing include Academic Center for Evidence Based Nursing, Sarah Cole Hirsch Institute for Best Nursing Practices Based on Evidence, and the Joanna Briggs Institute.

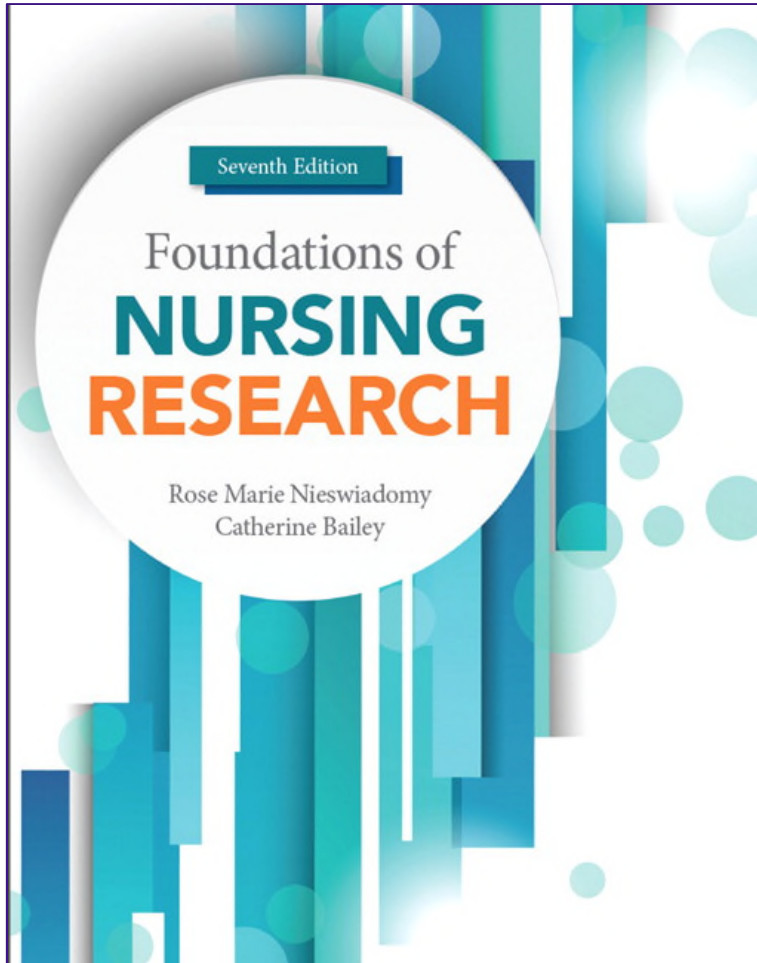
#### SUGGESTIONS FOR CLASSROOM ACTIVITIES

1. Develop a visual diagram of the various AHRQ agencies and their responsibilities. (LO1)
2. Divide the class into two groups and ask them to visit Web sites for AHRQ and the National Guideline Clearinghouse. Ask the groups to report on the information they find at these two sites. (LO4)

3. Develop practical examples for the use of research utilization and for the use of evidence-based practice. (LO1)
4. Discuss and identify which nonresearch sources of evidence the class considers to be the most relevant. (LO1)
5. Divide the class into three groups. Assign one of the Web sites to the groups (Joanna Briggs, Sarah Cole, etc.). Ask the groups to review the site and report on its location, goals, and so on. (LO3)
6. Assign a library activity to members of the class. Give students selected assignments from the journals listed in this chapter. Ask them to visit the library (hope the journals are there), have them review the journals, and report back to the group on the types and usefulness of the articles they find. (LO2)
7. During a classroom discussion, have the students prepare a power point presentation focusing on the roles of evidence-based nursing practice centers. Post the power point presentation to the learning management system. (LO5)

# *Foundations of Nursing Research*

## Seventh Edition



## Chapter 2

### Evidence-Based Nursing Practice

# Learning Objectives

1. Summarize the importance of evidence-based practice in the field of nursing
2. Differentiate between research utilization and evidence-based nursing practice
3. Discuss the importance of the Cochrane Collaboration and the Cochrane Nursing Care Field to evidence-based practice
4. Explain the role of the Agency for Healthcare Research and Quality in evidence-based practice
5. Summarize the roles of evidence-based nursing practice centers

# Learning Objective One

Summarize the importance of evidence-based practice in the field of nursing

# Defining Evidence-Based Practice

- Term is vital for the future of nursing care.
- Goal of evidence-based practice (EBP) must be based on data, especially data gained from nursing research.
  - Often, there is no data, or the data isn't available.

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# Defining Evidence-Based Practice

- Why we use evidence-based practice
  - EVP originated in the field of medicine
  - Cochrane (1972)
    - Pointed out lack of solid evidence about effects of healthcare
    - Healthcare resources would always be limited, and should be used to provide most effective healthcare.
    - Medical profession wasn't prepared for examination of their effectiveness.
      - Took another 20 years before EVP began to grow

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# Defining Evidence-Based Practice

- Why we use evidence-based practice
  - Sackett (1996)
    - Editorial caught attention of medical profession.
    - Idea of evidence-based medicine became accepted.
    - Initially defined evidence-based medicine as “the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients”.

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# Defining Evidence-Based Practice

- Why we use evidence-based practice
  - Many terms relate to use of evidence in practice decisions
    - Evidence-based medicine (EBM)
    - Evidence-based practice (EBP)
    - Evidence-based care (EBC)
    - Evidence-based healthcare (EBHC)
    - Evidence-based nursing (EBN)
    - Evidence-based nursing practice (EBNP)

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# Defining Evidence-Based Practice

- Why we use evidence-based practice
  - Sigma Theta Tau International (STTI)
    - Supports dissemination of knowledge to improve nursing practice
    - Defined EBN as “an integration of the best evidence available, nursing expertise, and the values and preferences of the individuals, families, and communities who are served”
    - Assumes optimal nursing care will be provided when healthcare decision makers and nurses have access to the synthesis of current research.

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# Defining Evidence-Based Practice

- Research Utilization versus Evidence-Based Practice
  - Research utilization (RU)
    - A more narrow term than evidence-based nursing practice
    - Involves the use of results from specific research studies that focused on one clinical problem
    - Knowledge accumulates over time, works into practice

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# Defining Evidence-Based Practice

- Research Utilization versus Evidence-Based Practice
  - Evidence-based practice (EBP)
    - Broader in scope than RU
    - Clinician expected to consider more than evidence during decision-making process.

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# Defining Evidence-Based Practice

- Research Utilization versus Evidence-Based Practice
  - Evidence-based practice (EBP)
    - Expert clinicians consider:
      - Synthesis of best evidence from multiple studies.
      - Patient's circumstances.
      - Results generated from outcomes management or quality improvement projects.
      - Patient's preferences.
      - Available resources.

# Learning Objective Two

Differentiate between research utilization and evidence-based nursing practice

# Evidence-Based Nursing Practice

- Goal of EBP in nursing is to introduce current knowledge into common care decisions, improving:
  - Effectiveness of processes
  - Patient outcomes associated with healthcare
- EBP has been promoted for accountability in safety and quality improvement.

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# Evidence-Based Nursing Practice

- Benefits of EBP
  - Improved patient outcomes
  - JC and ANCC recognized EBP's as the best treatment plans or standards of care for those who are maintaining accreditation and seeking Magnet Hospital recognition.

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# Evidence-Based Nursing Practice

- Benefits of EBP
  - Joint Commission (JC)
    - Independent, not-for-profit organization
    - Accredits and certifies healthcare organizations and programs in the U.S.
    - Nation's oldest and largest standards-setting and accrediting body in healthcare

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# Evidence-Based Nursing Practice

- Benefits of EBP
  - Magnet Recognition (MR)
    - Program developed by American Nurses Credentialing Center (ANCC)
    - Recognizes healthcare organizations
      - Quality patient care
      - Nursing excellence
      - Innovations in nursing practice

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# Evidence-Based Nursing Practice

- Asking Clinical Questions
  - First, identify a clinical problem
    - Suggests there is a better way to provide care;
    - That will promote improved healthcare;
    - In a cost-effective way

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# Evidence-Based Nursing Practice

- Asking Clinical Questions
  - PICOT
    - Format for writing clinical questions
    - Developed by Fineout-Overholt and Johnston

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# Evidence-Based Nursing Practice

- Asking Clinical Questions
  - PICOT
    - **P**
      - Patient or population
    - **I**
      - Intervention or interest area
    - **C**
      - Comparison intervention or current practice
    - **O**
      - Outcome(s) desired
    - **T**
      - Time to achieve outcome

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# Evidence-Based Nursing Practice

- Sources for Evidence for Practice
  - Research evidence can be classified as:
    - Translational literature
    - Evidence summaries
    - Primary evidence

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# Evidence-Based Nursing Practice

- Sources for Evidence for Practice
  - Translational literature
    - Refers to evidence that has been incorporated into guidelines that are used in clinical settings.
    - Standards of practice, protocols, and critical pathways are examples.

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# Evidence-Based Nursing Practice

- Sources for Evidence for Practice
  - Evidence summaries
    - Systematic reviews
    - Summaries of literature that appraise research that is appropriate for the research question
    - Typically found in nursing and non-nursing online databases

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# Evidence-Based Nursing Practice

- Sources for Evidence for Practice
  - Primary evidence
    - May be collected:
      - Directly from the patient
      - Clinical trial information
      - Peer-reviewed research articles in journals
      - Conference proceedings
      - Large data sets from organizations

## **Learning Objective Three**

Discuss the importance of the Cochrane Collaboration and the Cochrane Nursing Care Field to evidence-based practice

# The Cochrane Collaboration

- International nonprofit organization
- Contributors from more than 120 countries
  - Work together to produce credible, accessible health information that is free from commercial sponsorship and other conflicts of interest
- Established in 1993
- Named after Archie Cochrane

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# The Cochrane Collaboration

- 53 *Cochrane Review* Groups
  - Each focuses on a specific topic area.
  - Provide authors with methodological and editorial support to prepare *Cochrane Reviews*
  - Manage editorial process, which includes peer review

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# The Cochrane Collaboration

- *Cochrane Reviews*
  - Provide evidence for and against the effectiveness and appropriateness of treatments
  - Systematic reviews of health care interventions
    - Also called an integrative review
    - Rigorous scientific approach
    - Combines results from a group of original research studies and looks at the studies as a whole

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# The Cochrane Collaboration

- The *Cochrane Library*
  - Medium used to publish the work of Cochrane Collaboration
  - Six databases containing evidence to promote decision making in health care:
    - a) Cochrane Database of Systematic Reviews (CDSR)
    - b) Cochrane Central Register of Controlled Trials (CENTRAL)
    - c) Cochrane Methodology Register (CMAR)
    - d) Database of Abstracts of Reviews of Effects (DARE)
    - e) Health Technology Assessment Database (HTA)
    - f) NHS Economic Evaluation Database (EED)
  - Seventh database provides information about groups in the Cochrane Collaboration.

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# The Cochrane Collaboration

- Cochrane Database
  - *Cochrane Database of Systematic Reviews*
    - Published electronically as part of the Cochrane Library archives
  - Protocols describe the research methods and objectives for reviews that are in progress.
  - Abstracts are also available free online to everyone.

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# The Cochrane Collaboration

- Cochrane Centers
  - Located throughout the world
  - Help coordinate and support the Cochrane Collaboration
  - Common responsibilities include:
    - Helping people to find out about the Cochrane Collaboration
    - Providing training for people who will do reviews
    - Fostering collaboration among people with similar research interests
    - Organizing workshops, seminars, and colloquia to support the Collaboration

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# The Cochrane Collaboration

- Cochrane Centers
  - Each center is unique.
    - Reflects interests of individuals associated with that particular center
  - United States center mission includes:
    - Support partnership with health and consumer advocacy groups interested in using evidence-based healthcare practice findings.
    - Strengthen the voices of consumers in healthcare research.
    - Provide leadership in those areas.

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# The Cochrane Collaboration

- Cochrane Nursing Care Field
  - Purpose is to support development of systematic reviews and dissemination and utilization of systematic reviews relevant to the field of nursing.

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# The Cochrane Collaboration

- Cochrane Nursing Care Field
  - Core functions include:
    - a) Identifying topics related to nursing care not covered in existing Cochrane reviews.
    - b) Identifying primary studies in nursing care by searching databases, relevant journals, and conference proceedings.
    - c) Promoting the field's perspectives across the CC.
    - d) Raising awareness of the resources that the CC offers to nursing.
    - e) Disseminating findings of relevant Cochrane reviews to the nursing community.
    - f) Identifying sources of funding to undertake or complete Cochrane reviews of interest.

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# The Cochrane Collaboration

- Cochrane Nursing Care Field
  - Activities coordinated from a dedicated unit in South Australia, and six Cochrane Nursing Care (CNC) field groups from 35 countries around the world.
  - Field groups are designed to promote a geographical spread of activities internationally.
  - Each group is responsible for a substantive field activity

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# The Cochrane Collaboration

- Cochrane Nursing Care Field
  - Membership is open.
    - Consumers of nursing care
    - Nurses
    - Formal and informal caregivers
    - Other healthcare professionals
    - Researchers
    - Others involved in the delivery of nursing care

# Learning Objective Four

Explain the role of the Agency for Healthcare Research and Quality in evidence-based practice

# Agency for Healthcare Research and Quality

- Agency for Healthcare Research and Quality (AHRQ)
  - Health services research branch of U.S. Department of Health and Human Services (HHS)
  - Began an initiative to improve quality, effectiveness, and appropriateness of healthcare delivery in the United States
  - Promoted the idea of evidence-based practices through the leadership of Evidence-Based Practice Centers (EPCs) in 1997

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# Agency for Healthcare Research and Quality

- National Quality Strategy (NQS)
  - AHRQ delivered the National Quality Strategy (NQS) publication to Congress in 2011.
  - Served as a vehicle to focus nationwide attention on quality improvement efforts
  - Aims of the strategy were:
    - To improve the overall quality of healthcare.
    - To support interventions that aided in improving health.
    - To reduce the cost of quality healthcare.

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# Agency for Healthcare Research and Quality

- National Quality Strategy (NQS)
  - Priorities were:
    - a) To reduce the harm caused in the delivery of care.
    - b) To ensure that each person and family engaged as partners in their care.
    - c) To promote communication and coordination of care.
    - d) To promote the most effective prevention and treatment practices for the leading causes of mortality.
    - e) To work with communities to promote wide use of best healthcare practices to enable healthy living.
    - f) To make quality care more affordable.

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# Agency for Healthcare Research and Quality

- AHRQ identified four priorities to promote an evidence-based improvement of healthcare services and outcomes:
  - a) Improve healthcare quality through the implementation of Patient-Centered Outcome Research (PCOR), especially within small-to-medium-sized primary care practices
  - b) Make healthcare safer not only in hospital settings, but also in primary care settings and nursing homes
  - c) Increase accessibility of healthcare by studying the effects of health insurance expansion (following the passage of the PPACA) in access to care, use of healthcare, healthcare spending, and health outcomes, and the labor market
  - d) Improve healthcare affordability, efficiency, and cost transparency.

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# Agency for Healthcare Research and Quality

- Evidence-Based Practice Centers
  - Develop evidence reports and technology assessments
    - Topics are related to clinical, social science/behavioral science, economic, and other healthcare organization and delivery issues.
  - Topics of consideration nominated by professional societies, insurers, employers, and patient groups

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# Agency for Healthcare Research and Quality

- U.S. Preventive Services Task Force
  - Conducts systematic reviews on clinical preventative services
    - Results of reviews are utilized for making recommendations for use in primary care settings.
  - Reviews evidence and determines benefits and harms (or unintended consequences) for each preventive service

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# Agency for Healthcare Research and Quality

- U.S. Preventive Services Task Force
  - AHRQ supports the work of the USPSTF.
  - Independent body
    - Work does not require AHRQ or HHS approval.

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# Agency for Healthcare Research and Quality

- U.S. Preventive Services Task Force
  - Grades recommendations
    - A. Recommends the service
      - There is high certainty that the net benefit is substantial
    - B. Recommends the service
      - There is high certainty that the net benefit is moderate, or;
      - There is moderate certainty that the net benefit is moderate to substantial
    - C. Recommends the service
      - There is at least moderate certainty that the net benefit is small
    - D. Recommends against the service
      - There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits
    - I. The current evidence is insufficient to assess the balance of benefits and harms of the service.

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# Agency for Healthcare Research and Quality

- U.S. Preventive Services Task Force
  - PPACA of 2010 has charged USPSTF to make an annual report to Congress.
    - Identifies gaps in evidence base for clinical preventive services
    - Recommends priority areas deserving further examination

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# Agency for Healthcare Research and Quality

- National Guideline Clearinghouse
  - Database of clinical practice guidelines and related documents
  - Sponsored by AHRQ
  - Every nurse should know about practice guidelines specific for her or his area of practice.

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# Agency for Healthcare Research and Quality

- National Quality Forum
  - Not-for-profit, nonpartisan, membership-based organization
  - Vision is to assist in establishment of national priorities and goals to achieve healthcare that is safe, effective, patient-centered, timely, efficient, and equitable

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# Agency for Healthcare Research and Quality

- National Quality Forum
  - Works to create *measures* or strategies that show whether standards for prevention, screening, and managing health conditions are met.
    - a) Structural measures
    - b) Process measures
    - c) Outcome measures
    - d) Patient engagement or experiences measures
    - e) Composite measures

# Learning Objective Five

Summarize the roles of evidence-based nursing practice centers

# Evidence-Based Nursing Practice Centers

- Introduction of EBP onto quality improvement has generated a major paradigm shift within healthcare in United States.
- NQS is a call for nurses to redesign their care.
  - Strategies to promote evidence of healthcare that is safe and effective as well as efficient
- Proliferation of journals, books and websites
  - *Evidence-Based Nursing*
  - *Worldviews on Evidence-Based Nursing*

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# Evidence-Based Nursing Practice Centers

- Centers that promote EBP for nursing
  - Joanna Briggs Institute
  - ACE Center for Advancing Clinical Excellence
  - Cole Hirsch Institute for Best Nursing Practices

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# Evidence-Based Nursing Practice Centers

- Joanna Briggs Institute
  - Established in 1996
  - International not-for-profit collaboration involving:
    - Nursing, medical, and allied health researchers
    - Clinicians
    - Academics
    - Quality managers

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# Evidence-Based Nursing Practice Centers

- Joanna Briggs Institute
  - Coordinates efforts of a group of self-governing collaborative centers
    - Three collaborating nursing centers in the United States
  - Goal to promote and support the improvement of healthcare outcomes globally by identifying effective healthcare practices through synthesis of research

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# Evidence-Based Nursing Practice Centers

- ACE Center for Advancing Clinical Excellence
  - School of Nursing of the University of Texas Health Science Center at San Antonio
  - Established in 2000
  - Purpose to advance evidence-based nursing practice, research, and education within an interdisciplinary context.
  - Center is focused on conducting research on every facet of the translational science model.

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# Evidence-Based Nursing Practice Centers

- Sarah Cole Hirsh Institute (SCHI) for Best Nursing Practices Based on Evidence
  - Case Western Reserve University Frances Payne Bolton School of Nursing in Cleveland, Ohio
  - Conducts evidence syntheses
  - Provides consulting services on evidence-based practice across healthcare settings
  - Offers certificate programs to educate nurses on the best practice based on evidence

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# Evidence-Based Nursing Practice Centers

- Sarah Cole Hirsh Institute (SCHI) for Best Nursing Practices Based on Evidence
  - Facilitates and mentors others in the transfer of research knowledge into practice
  - Searches for and synthesizes current research on specific topics.