

## Chapter 01: Integrating Research, Evidence-Based Practice, and Quality Improvement Processes

### LoBiondo-Wood & Haber: Nursing Research: Methods and Critical Appraisal for Evidence-Based Practice, 9th Edition

#### MULTIPLE CHOICE

1. Nursing research is significant to the profession of nursing because it promotes:
  - a. more specifically defined nursing practice responsibilities.
  - b. decreased liability within the practice of nursing.
  - c. generation of a specialized body of nursing knowledge for use in nursing practice.
  - d. expansion of the scope of nursing practice into other disciplines.

ANS: C

	Feedback
A	Research aids in documenting accountability of nurses, but professional guidelines already exist regarding responsibility. Each state has a Nurse Practice Act with rules and regulations that define scope of practice.
B	Liability is a legal concept related to a nurse's legal scope of practice and professional standards of practice. Research does not change a nurse's liability.
C	Nursing research generates a specialized scientific knowledge base that empowers the nursing profession to anticipate and meet constantly shifting challenges of health care delivery to multiple populations. It provides a foundation for evidence-based nursing care and quality improvement activities.
D	Although research can document nursing accountability, each state's Nurse Practice Act defines the scope of nursing practice for that state.

PTS: 1

DIF: Cognitive Level: Understanding (Comprehension)

REF: Page 6

2. An aspect of the scientific investigation of nursing practice that is also a fundamental concept of American Nurses Association (ANA)'s Code for Nurses is:
  - a. professional accountability.
  - b. standards of care.
  - c. legal scope of practice.
  - d. advanced practice nursing activities.

ANS: A

	Feedback
A	Scientific investigation promotes accountability, a hallmark of the nursing profession and a fundamental concept of the ANA's Code for Nurses.
B	Standards of care are defined by ANA, as well as specialty nursing organizations. The Code for Nurses states that nurses should conform to standards, but standards per se are not part of the Code.
C	Legal scope of practice is defined by each state's Nurse Practice Act and elaborated in its rules and regulations.
D	The ANA Code applies to nursing practice in general, not advanced practice.

PTS: 1                      DIF: Cognitive Level: Remembering (Knowledge)  
 REF: Page 7

3. Nurses need to be able to understand the nursing research process:
- to identify potential subjects for clinical research studies.
  - to assist as accurate data collectors in clinical research studies.
  - to teach patients and families the importance of participating in research.
  - to evaluate nursing research reports for relevance to their own clinical practice.

ANS: D

	Feedback
A	Subject identification is determined by the nurse researcher.
B	Data collectors need to understand their role in the study; they do not need to understand the entire research process.
C	Subject recruitment is the responsibility of the nurse researcher.
D	Nurses need to understand the research process in order to critically read research reports and determine if nursing practice should incorporate the research findings as valid evidence.

PTS: 1                      DIF: Cognitive Level: Understanding (Comprehension)  
 REF: Page 7

4. The action that demonstrates the role of a knowledgeable consumer of nursing research is:
- designing a nursing research study.
  - analyzing data to determine a study's outcomes.
  - evaluating the credibility of research findings.
  - implementing an intervention found to be effective in one clinical case study.

ANS: C

	Feedback
A	A consumer uses and applies research to practice but is not responsible for designing a study.
B	A consumer does not conduct data analysis of a study; the study's primary investigator analyzes data.
C	A consumer of nursing research needs to understand the research process to determine the merit and relevance of evidence presented in research studies.
D	A consumer would not implement an intervention on the basis of a single case study.

PTS: 1                      DIF: Cognitive Level: Understanding (Comprehension)  
 REF: Page 7

5. Members of the nursing staff are to participate in a unit-based clinical research study. Which research-related actions would be expected of a nurse with a baccalaureate nursing degree?
- Using critical appraisal skills to understand and assess the steps of the research process
  - Providing expert nursing consultation about the way in which clinical services are

- delivered
- c. Developing research methods to monitor and evaluate the quality of nursing practice in the clinical setting
  - d. Providing leadership in the application of scientific knowledge to nursing practice

ANS: A

	Feedback
A	A baccalaureate-prepared nurse should be able to use skills of critical appraisal to both understand and appraise the steps of the research process.
B	Nurses prepared at the baccalaureate level in nursing are at the bedside implementing protocols, whereas expert consultation is generally reserved for nurses prepared at the master's or higher-degree level (advanced education).
C	Developing research methods is generally reserved for nurses with advanced education.
D	Providing leadership in research application is generally reserved for nurses with advanced education.

PTS: 1                      DIF: Cognitive Level: Understanding (Comprehension)  
 REF: Page 7

6. Which statement describes the role of the nurse in research?
- a. Nurses must be prepared at the baccalaureate or higher level of education to have any role in nursing research.
  - b. Nurses with master's or higher levels of education are solely responsible for applying research to clinical practice.
  - c. The research role of nurses prepared at both baccalaureate and master's levels of education includes critical appraisal skills.
  - d. Regardless of the nursing education level, only the nurse with the most comprehensive understanding of statistical methods should interpret research findings.

ANS: C

	Feedback
A	Having a role in nursing research or implementing findings is not limited to nurses with baccalaureate or higher levels of education.
B	Nurses with master's or higher levels of education provide leadership to supervise how research findings are applied in the clinical area. However, all levels of nurses can apply research findings to practice.
C	To use research in evidence-based practice, the nurse must not necessarily be able to conduct research but should be able to understand and appraise the steps of the research process to read the research literature critically and use it to inform clinical decisions.
D	Data analysis is usually conducted by nurses with master's or higher levels of education. However, interpretation of research findings can be performed by any nurse who can critically analyze the research performed.

PTS: 1                      DIF: Cognitive Level: Understanding (Comprehension)  
 REF: Page 7

7. What is the *primary* value of evidence-based nursing practice?
- Implementing the most cost-effective nursing practices when providing patient care
  - Incorporating research findings with clinical expertise when individualizing patient care
  - Separating nursing research as unique from the research of other disciplines
  - Developing new nursing theories to promote the growth of nursing science

ANS: B

	Feedback
A	Cost-effective nursing interventions can occur based on evidence, but it is not the primary value of evidence-based nursing practice.
B	Evidence-based practice allows the nurse to systematically integrate the best available research evidence with individual clinical expertise, as well as the patient's values and preferences, when making clinical decisions.
C	Developing a unique body of nursing knowledge is important, but it is not the primary value of developing evidence-based nursing practice. Also, nurse researchers should be able to collaborate with researchers in other disciplines.
D	Developing abstract nursing theory is important, but evidence-based nursing is focused on the more concrete application of knowledge in clinical practice.

PTS: 1

DIF: Cognitive Level: Understanding (Comprehension)

REF: Page 14

8. A novice nurse researcher is comparing the processes used in nursing research and in evidence-based practice. What differences, if any, exist between the two processes?
- As scientific processes, they are fundamentally the same and should result in parallel outcomes.
  - Both processes involve testing a question with an appropriate design and specific methodology.
  - In a research study the question is tested with an appropriate design and specific methodology, whereas in evidence-based practice, the question is used to search the research literature to find answers.
  - In evidence-based practice, qualitative studies are critically appraised to answer a clinical question, whereas in nursing research, quantitative studies are reviewed to provide a foundation for the study.

ANS: C

	Feedback
A	The research process and the evidence-based practice process, though similar, have fundamental differences as well.
B	This definition applies to the research process, not the evidence-based practice process.
C	Nursing research includes developing a design for a study, whether quantitative or qualitative, reviewing the literature, and carrying out a specific methodology to find answers to a question. In contrast, evidence-based practice includes a review of completed research studies to identify answers to a clinical question.

D	Both the research process and the evidence-based practice process include critical review of quantitative and qualitative studies.
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PTS: 1                      DIF: Cognitive Level: Understanding (Comprehension)  
 REF: Page 7

9. A nurse is analyzing a research article. Where in the article is the nurse likely to find the research question and study purpose?
- Introduction
  - Data analysis
  - Findings
  - Data collection

ANS: A

	Feedback
A	The research question and study purpose is generally found early in the report: in the abstract, the introduction, or at the end of the literature review or conceptual framework section.
B	The research question and study purpose are defined before the data analysis section of the research article.
C	The research question and study purpose are defined before the findings section of the research article.
D	The research question and study purpose are defined before the data-collection section of the research article.

PTS: 1                      DIF: Cognitive Level: Understanding (Comprehension)  
 REF: Page 8, Table 1.1

10. The nurse researcher is conducting a research study using subjects who will be interviewed regarding their experience with postpartum depression. Why would the researcher select a qualitative, rather than a quantitative, research design?
- Quantitative research is usually conducted in natural settings using data that are words rather than numbers.
  - Qualitative research seeks to explain cause-and-effect relationships between variables.
  - Quantitative research typically uses a convenience sample, seeking to answer a clinical question about a human experience.
  - Qualitative research collects data from a small number of subjects, allowing for in-depth study of a phenomenon.

ANS: D

	Feedback
A	Qualitative, not quantitative, research is usually conducted in natural settings using data that are words rather than numbers.
B	Quantitative, not qualitative, research seeks to explain cause-and-effect relationships between variables.
C	Qualitative, not quantitative, research seeks to answer a question about a human experience.

<b>D</b>	Qualitative research typically collects data from a small number of subjects, thus allowing for in-depth study of a phenomenon while using a subjective approach.
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PTS: 1                      DIF: Cognitive Level: Remembering (Knowledge)  
 REF: Page 8

11. The nurse is analyzing a research article. To determine if an integrative review was performed as part of the study, the nurse must understand that this type of review is:
- a summary of research studies on a focused topic that used a specific statistical methodology.
  - a synthesis of the research and theoretical literature on a specific area without a statistical analysis.
  - a synthesis of qualitative articles on a focused topic using a specific qualitative methodology.
  - a summary of articles in an attempt to develop a clinical practice statement or clinical guidelines.

ANS: B

	Feedback
<b>A</b>	Meta-analysis summarizes articles on a focused topic that used a specific methodology.
<b>B</b>	An integrative review is a synthesis of research or theoretical literature on a specific area that follows specific steps of literature integration without statistical analysis.
<b>C</b>	Meta-synthesis is a synthesis of qualitative articles on a focused topic using specific qualitative methodology. <a href="http://www.nursingtb.com">www.nursingtb.com</a>
<b>D</b>	Clinical guidelines are practice statements designed to assist clinicians about health care decisions for specific conditions or situations.

PTS: 1                      DIF: Cognitive Level: Remembering (Knowledge)  
 REF: Page 19

12. When assessing the strength of a body of evidence used in a research study for *consistency*, the nurse should determine:
- extent to which the study’s design, implementation, and analysis minimize bias.
  - number of studies that have evaluated the research question, including overall sample size across studies.
  - degree to which studies with similar and different designs investigated the same research questions and report similar findings.
  - significance of the findings based on the statistical methods used for data analysis.

ANS: C

	Feedback
<b>A</b>	Quality refers to the extent to which the study’s design, implementation, and analysis minimize bias.
<b>B</b>	Quantity refers to the number of studies that have evaluated the research question, including overall sample size across studies.
<b>C</b>	Consistency is the degree to which studies that had similar and different designs

	(but investigate the same research question) reported similar findings.
D	Quantity refers to the strength of the findings in the statistical analyses.

PTS: 1                      DIF: Cognitive Level: Remembering (Knowledge)  
REF: Page 14

13. The nurse is analyzing a qualitative research article. In which section of the article is the nurse likely to find a summary of legal-ethical issues considered in the study?
- Data collection or procedures
  - Findings or results
  - Discussion or implications
  - Abstract or introduction

ANS: A

	Feedback
A	Legal-ethical issues are typically discussed in the article's data-collection or procedures section, usually when discussing the sample.
B	The research results are typically found in the findings or results sections.
C	Recommendations are typically found in the discussion or implications sections.
D	The research question and study purpose are typically found in the abstract or introduction.

PTS: 1                      DIF: Cognitive Level: Remembering (Knowledge)  
REF: Page 8, Table 1.1

14. The nurse is analyzing a qualitative research article. In which section of the article should the nurse expect to find a discussion of the research findings?
- Procedures
  - Methods
  - Sample
  - Results

ANS: D

	Feedback
A	Data analysis is typically included in the data analysis or procedures section.
B	Instruments and their validity and reliability are included in the methods or instruments sections.
C	The research sample and legal-ethical issues are included in the sample or subjects section.
D	The discussion of the findings will be located in the results or discussion section.

PTS: 1                      DIF: Cognitive Level: Remembering (Knowledge)  
REF: Page 8, Table 1.1

15. The nurse is using the critical reading process to analyze a research article. The nurse identifies the main theme of the article and states it in two sentences, using the nurse's own words. The nurse is using a strategy to promote which type of understanding?
- Preliminary

- b. Comprehensive
- c. Analysis
- d. Synthesis

ANS: B

	Feedback
A	Strategies for preliminary understanding include activities such as using a dictionary and identifying key variables of the study.
B	Strategies for comprehensive understanding include restating the main idea or theme of the article in one's own words.
C	Strategies for analysis understanding include using criteria to critique the steps of the research process used in the study.
D	Strategies for synthesis understanding include writing a summary of the strengths and weaknesses of the study.

PTS: 1

DIF: Cognitive Level: Understanding (Comprehension)

REF: Page 12

16. The nurse is using the critical reading process to analyze a research article. The nurse is using a list of criteria to determine how well the researcher performed each step of the research process. The nurse is using a strategy to promote which type of understanding?
- a. Preliminary
  - b. Comprehensive
  - c. Analysis
  - d. Synthesis

ANS: C

	Feedback
A	Strategies for preliminary understanding include activities such as highlighting or underlining identified steps of the research process.
B	Strategies for comprehensive understanding include restating the main idea or theme of the article in one's own words.
C	Strategies for analysis understanding include using criteria to critique the steps of the research process used in the study.
D	Strategies for synthesis understanding include writing a summary of the strengths and weaknesses of the study.

PTS: 1

DIF: Cognitive Level: Understanding (Comprehension)

REF: Page 10

17. Which of the following is a *critical* step for the quality improvement process in health care settings?
- a. Outlining general long-range goals
  - b. Identifying current successful practices
  - c. Testing practice changes slowly and tentatively
  - d. Adopting a practice change as a new standard of care

ANS: D

	Feedback
<b>A</b>	Quality improvement includes identifying specific, immediate goals, not long-range goals.
<b>B</b>	The quality improvement process includes identifying practices that pose problems, rather than identifying successful practices.
<b>C</b>	Quality improvement includes testing practice changes rapidly, not slowly.
<b>D</b>	The goal of quality improvement activities is to bring about changes in practice that will make a positive difference in patient care. Therefore, adopting a practice change is a critical step in the process.

PTS: 1

DIF: Cognitive Level: Remembering (Knowledge)

REF: Page 20

**MULTIPLE RESPONSE**

1. Which statements describe the actions of the baccalaureate nurse graduate as a participant in the nursing research process? (*Select all that apply.*)
  - a. Administering care at the bedside according to a research protocol
  - b. Providing leadership by helping others apply scientific knowledge to practice
  - c. Sharing with nursing colleagues research findings that are pertinent to practice
  - d. Designing and conducting nursing research studies
  - e. Functioning as a primary investigator for a research study

ANS: A, C

	Feedback
<b>Correct</b>	Following a research protocol at the bedside is an activity consistent with the practice of a nurse prepared at the baccalaureate level. Sharing research evidence with colleagues is an activity consistent with the practice of a nurse prepared at the baccalaureate level.
<b>Incorrect</b>	Leadership related to scientific investigation is more appropriate for a nurse prepared at the master's or higher-degree level. Designing and conducting research studies are activities more appropriate for a nurse with doctoral preparation. Functioning as a primary investigator is an activity appropriate for a nurse with doctoral preparation.

PTS: 1

DIF: Cognitive Level: Understanding (Comprehension)

REF: Page 7

2. Which aspects of the nursing research process are common to nurses at all educational levels? (*Select all that apply.*)
  - a. Disseminating research findings in research reports
  - b. Maintaining the protection of patients who are subjects in a study
  - c. Using one's expertise to develop theoretical explanations for findings
  - d. Knowing the relationship between research and nursing practice
  - e. Being a member of a collaborative team that applies research to practice

ANS: B, D, E



	Feedback
<b>Correct</b>	All nurses are responsible for protecting the rights of patients. All nurses should be aware that research is related to practice. All nurses can be a part of a clinical team that applies research to practice.
<b>Incorrect</b>	Disseminating research in scientific reports is an activity generally performed by nurses with master's or higher educational preparation. Developing theoretical explanations for findings is an activity generally performed by nurses with master's or higher educational preparation.

PTS: 1

DIF: Cognitive Level: Understanding (Comprehension)

REF: Page 7

3. For the baccalaureate nursing student, education in nursing research should result in: (*Select all that apply.*)
- mastering the development of research protocols.
  - gaining basic understanding of the research process.
  - learning how research is related to clinical nursing practice.
  - developing skill as a primary investigator in research.
  - becoming a knowledgeable consumer of nursing research.

ANS: B, C, E

	Feedback
<b>Correct</b>	The student should gain an initial understanding of the importance of research in nursing practice. The student should learn how research is related to clinical nursing practice. The student should learn skills in the critical analysis of research to assist in decisions about applying research findings in nursing practice.
<b>Incorrect</b>	Mastery of research protocol development is generally attained at the master's or higher-degree level of education. Developing skill as a primary investigator is generally attained at the doctoral level of education.

PTS: 1

DIF: Cognitive Level: Understanding (Comprehension)

REF: Page 7

4. Developing nurse researchers at a younger age is a priority for the future in the nursing profession because it should: (*Select all that apply.*)
- enhance the discipline's scientific development.
  - increase the longevity of research careers.
  - receive more research funding for professional organizations.
  - promote mentoring opportunities for novice researchers.
  - increase nursing's role in pharmaceutical research.

ANS: A, B, D

	Feedback
<b>Correct</b>	Developing young researchers increases the number of researchers contributing to the science of the discipline. Introducing nurses to research at a younger age allows them sufficient