

**MULTIPLE CHOICE**

1. Which statement best describes evidence-based practice (EBP)?
  - a. A combination of best research evidence, clinical expertise, and the needs and values of patients
  - b. A determination of the factors necessary to control patient responses to care and delivery of care
  - c. The development of population care guidelines applicable to all patients
  - d. The utilization of quantitative and qualitative studies to enhance patient outcomes

ANS: A

Evidence-based practice evolves from the integration of the best research evidence with clinical expertise and patient needs and values. Studies that attempt to find determinants of patient outcomes are generally experimental or quasi-experimental. They may be used to guide EBP but do not completely define it. EBP is a combination of guidelines and specific patient needs and values. Quantitative and qualitative studies applied to the evaluation of patient outcomes are part of EBP but do not completely define EBP.

DIF: Cognitive level: Remembering (Knowledge)

2. The nurse is collecting data about the sleep patterns of breastfed babies as part of a larger research study. Which research method will the nurse use when collecting data for this study?
  - a. Control
  - b. Description
  - c. Explanation
  - d. Prediction

ANS: B

Description involves identifying and understanding the nature of nursing phenomena and the relationships among these phenomena. Control can be described as the ability to write a prescription to produce the desired results. Explanation clarifies the relationships among phenomena and identifies why certain events occur. Through prediction, the probability of a specific outcome can be estimated in a given situation.

DIF: Cognitive level: Understanding (Comprehension)

3. The nurse is participating in a study and is collecting data identifying the number of obese adults whose parents were also obese or overweight. Which research method is being used in this study?
  - a. Control
  - b. Description
  - c. Explanation
  - d. Prediction

ANS: D

Through prediction, the probability of a specific outcome can be estimated in a given situation. By knowing the percentage of parents of obese adults who were obese, the probability of predicting this may be calculated. Control indicates the ability to use a prescribed intervention to produce the desired results. Description involves identifying and understanding the nature of nursing phenomena and the relationships among these phenomena. Explanation clarifies the relationships among phenomena and identifies why certain events occur.

DIF: Cognitive level: Applying (Application)

4. The nurse reviews a study in which adherence to an asthma action plan is compared among groups of young adults who received different asthma education. Which research method does this represent?
  - a. Control
  - b. Description
  - c. Explanation
  - d. Prediction

ANS: C

Explanation clarifies the relationships among phenomena and identifies why certain events occur. Control indicates the ability to use a prescribed intervention to produce the desired results. Description involves identifying and understanding the nature of nursing phenomena and the relationships among these phenomena. Through prediction, the probability of a specific outcome can be estimated in a given situation.

DIF: Cognitive level: Applying (Application)

5. A nurse manager is interested in learning which attitudes among staff nurses may indicate relative risk of needle-stick injuries. To study this, the nurse manager will employ which method of study?
- Control
  - Description
  - Explanation
  - Prediction

ANS: D

Through prediction, the probability of a specific outcome can be estimated in a given situation. Control indicates the ability to use a prescribed intervention to produce the desired results. Description involves identifying and understanding the nature of nursing phenomena and the relationships among these phenomena. Explanation clarifies the relationships among phenomena and identifies why certain events occur.

DIF: Cognitive level: Applying (Application)

6. Which is the **most** important result of Florence Nightingale's data collection and statistical analysis during the Crimean War?
- Bringing awareness of the rigors of war to the general public in relation to care practices
  - Developing a process for statistical analysis and nursing documentation
  - Identifying and defining the role of nurses in modern health care
  - Using clinical research to evaluate the need for sanitation, clean drinking water, and adequate nutrition

ANS: D

Nightingale's research enabled her to instigate attitudinal, organizational, and social changes, including the military's approach to the care of the sick and society's sense of responsibility for testing public water, improving sanitation, and preventing starvation to decrease morbidity and mortality rates. Bringing awareness of the rigors of war to the public, developing a process for statistical analysis and nursing documentation, and identifying and defining the role of nurses in modern health care were not the most important results.

DIF: Cognitive level: Understanding (Comprehension)

7. The nurse participates in data collection in a study in which two different pain management protocols are used with randomly assigned patients to measure differences in postoperative recovery time. Which method of study is this?
- Control
  - Correlation
  - Description
  - Explanation

ANS: A

Control indicates the ability to use a prescribed intervention to produce the desired results. Correlation examines the relationships between different phenomena. Description involves identifying and understanding the nature of nursing phenomena and the relationships among these phenomena. Explanation clarifies the relationships among phenomena and identifies why certain events occur.

DIF: Cognitive level: Applying (Application)

8. The nurse reviews a study exploring experiences of nurses' decision-making processes regarding reporting a medical error. Which research method does this represent?
- Control
  - Description
  - Explanation
  - Prediction

ANS: B

Description involves identifying and understanding the nature of nursing phenomena and the relationships among these phenomena. Control can be described as the ability to write a prescription to produce the desired results. Explanation clarifies the relationships among phenomena and identifies why certain events occur. Through prediction, the probability of a specific outcome can be estimated in a given situation.

DIF: Cognitive level: Understanding (Comprehension)

9. The development of nursing theories and conceptual models in the late 1960s and 1970s served to
- determine the effectiveness of nursing interventions.
  - establish the concept of evidence-based practice.
  - provide funding for nursing research.
  - provide direction for nursing research.

ANS: D

The theories developed in the 1960s and 1970s helped to guide future nursing research and practice. Outcome studies are used to determine the effectiveness of nursing interventions. The concept of EBP was developed in the 1970s and promoted by the ANCC Magnet Hospital Designation program. The NINR seeks to provide funding for nursing research.

DIF: Cognitive level: Understanding (Comprehension)

10. The National Institute of Nursing Research (NINR) began to change its focus to
- funding nursing rather than medical research.
  - evaluating outcomes rather than process studies.
  - increasing the status and funding for nursing research.
  - supporting the dissemination of nursing research.

ANS: C

The National Center for Nursing Research (NCNR) changed its name to the NINR to increase the status and funding of nursing research. The change in focus from medical to nursing research came about with the first nursing programs. Outcomes research emerged in the 1980s and 1990s to document the effectiveness of healthcare services. The NCNR's purpose was to support the conduct and dissemination of knowledge development through nursing research.

DIF: Cognitive level: Remembering (Knowledge)

11. An emphasis of the American Nurses Credentialing Center (ANCC) Magnet Hospital Designation Program for Excellence in Nursing is
- research and development of clinical practice guidelines.
  - putting qualitative research into practice in clinical settings.
  - using standard nursing care plans based on outcomes research.
  - utilizing evidence-based practice in nursing.

ANS: D

ANCC implemented the Magnet Hospital Designation Program for Excellence in Nursing Service in 1990 that emphasized EBP for nursing. Clinical practice guidelines are a more recent phenomenon, using evidence-based research, expert opinion, and patient needs and values to standardize care. Qualitative research was introduced in the late 1970s to gain insight into the phenomena related to nursing. Outcomes research was important in the 1980s to 1990s to document the effectiveness of healthcare services.

DIF: Cognitive level: Remembering (Knowledge)

12. In a position statement in 2006, the American Association of Colleges of Nursing (AACN) identified a need to
- acquire clinical knowledge and expertise.
  - focus on evidence-based practice.
  - fund academic nursing research.
  - prepare a workforce of nurse scientists.

ANS: D

The AACN identified the importance of creating a research culture, providing high-quality educational programs to prepare a workforce of nurse scientists, develop a sound research structure, and obtain funding for nursing research. Basic nursing education focuses on clinical knowledge and expertise. Evidence-based practice is a focus of ANCC and the Magnet Designation Program for Excellence in Nursing Service. The NINR focuses on funding for nursing research.

DIF: Cognitive level: Understanding (Comprehension)

13. The lead agency designated to improve healthcare quality is
- Agency for Healthcare Research and Quality (AHRQ).
  - American Nurses Credentialing Center (ANCC).
  - Quality and Safety Education for Nurses (QSEN).
  - National Institute for Nursing Research (NINR).

ANS: A

AHRQ is a scientific partner with the public and private sectors to improve the quality and safety of patient care. ANCC provides credentialing for advanced practice nurses and for Magnet Designation for Excellence in Nursing Service. QSEN is focused on developing the requisite skills, knowledge, and attitude statements for the competencies for prelicensure and graduate education. The National Institute of Nursing Research is a federally funded arm of the National Institutes of Health, providing nursing with federal support for nursing research priorities.

DIF: Cognitive level: Remembering (Knowledge)

14. To help fulfill the mission of the National Institute for Nursing Research—to promote and improve the health of individuals, families, communities, and populations—a study may be conducted that
- assesses the effectiveness of strategies for weight management in patients with type 2 diabetes.
  - compares the attitudes of nurses toward clients with type 1 and type 2 diabetes.
  - generates up-to-date nursing diagnoses reflecting the needs of clients with type 2 diabetes.
  - reviews hospital nurses' adherence to glucose-monitoring guidelines for patients with type 2 diabetes.

ANS: A

A study that assesses the effectiveness of interventions helps to improve the health of patient populations by identifying appropriate strategies. A comparison of attitudes is a descriptive study that does not improve outcomes. A study to generate nursing diagnoses does not directly affect patient outcomes. A study reviewing adherence to guidelines seeks to provide data for quality assurance.

DIF: Cognitive level: Applying (Application)

15. Which best describes the Quality and Safety Education for Nurses (QSEN) competency for evidence-based practice (EBP)?
- Adhering to published guidelines to provide care for a specific population
  - Empowering clients to choose among effective disease management strategies
  - Relying on expert knowledge to guide care plan development for an individual patient
  - Using evidence gained solely from experimental studies to guide care

ANS: B

The QSEN competency for EBP is defined as integrating the best evidence with clinical expertise and patient/family preferences. Strict adherence to guidelines does not take the patient/family preferences into account. EBP does not rely solely on expert knowledge or experimental studies. Although experimental studies provide the highest level of study data, EBP does not rely solely on experimental studies.

DIF: Cognitive level: Applying (Application)

16. Through knowledge gained from her phenomenological qualitative study identifying levels of experience of professional nurses, Patricia Benner would identify which nurse as an expert?
- A hospice nurse who values the unique wishes of each patient when providing palliative care
  - A medical-surgical nurse who organizes care for a group of patients to ensure timely administration of medications
  - A neonatal intensive care nurse who is skilled in inserting peripherally inserted central catheters
  - A pediatric nurse who notes subtle changes and intervenes to prevent respiratory failure

ANS: D

The expert nurse has an extensive background of experience and is able to identify and accurately intervene skillfully in a situation. The pediatric nurse in this case recognizes subtle changes and is able to act to prevent serious circumstances. The proficient nurse views the patient as a whole and recognizes that each patient responds differently to illness and health. The competent nurse is able to achieve goals and plans and to take conscious actions to organize and provide efficient care. The NIC nurse is also an example of a competent nurse who is skilled in a procedure.

DIF: Cognitive level: Analyzing (Analysis)

17. Which study exemplifies qualitative research?
- A study that evaluates appetite among residents of a long-term care facility and correlates this data with whether or not residents are rooming together with their spouses
  - A study that defines levels of appetite based on residents' descriptions of hunger in a long-term care facility
  - A study that observes the interactions of spouses during mealtimes in a long-term care facility
  - A study that observes the effectiveness of spousal encouragement to eat on the residents' quality of appetite in a long-term care facility

ANS: C

Qualitative research involves the study of people as they interact in their sociohistorical settings. Correlational studies are quantitative studies. A descriptive study that measures appetite is a quantitative study. A measure of the effectiveness of an intervention is a quasi-experimental quantitative study.

DIF: Cognitive level: Analyzing (Analysis)

18. Which category of the quantitative research methods examines relationships and is conducted to develop and refine explanatory knowledge for nursing practice?
- Descriptive research
  - Correlational research
  - Quasi-experimental research
  - Experimental research

ANS: B

Correlational research examines relationships to develop and refine explanatory knowledge. Descriptive research explores new areas of research and describes situations as they exist in the world. Quasi-experimental and experimental studies determine the effectiveness of nursing interventions in predicting and controlling the outcomes desired for patients and families.

DIF: Cognitive level: Understanding (Comprehension)

19. A common method of measurement used in qualitative research is
- scales.
  - physiological measures.
  - unstructured interviews.
  - questionnaires.

ANS: C

Data in qualitative research take the forms of words, which are collected through interviews, observations, and focus groups. The methods of measurement commonly used in quantitative research include scales, questionnaires, and physiological measures (see Table 1.3).

DIF: Cognitive level: Understanding (Comprehension)

20. A nurse researcher wants to know how well adolescent mothers can learn to manage their children's asthma and develops an initial study to explore and define perceptions of asthma among this population. Which **best** describes this initial study?
- Correlational research
  - Descriptive research
  - Phenomenological research
  - Outcomes research

ANS: B

Descriptive research explores new areas of research and describes situations as they exist in the world. This initial study aims to describe current perceptions of asthma in a given population. Correlational research would attempt to make a connection between perceptions of asthma and a specific outcome. Phenomenological research involves gaining deeper insights into perceptions and values, not simply describing them. Qualitative research does not attempt to define variables.

DIF: Cognitive level: Analyzing (Analysis)

21. Which research technique would be used by a nurse researcher who wishes to compare bonding patterns of neonatal intensive care (NIC) infants to non-NIC infants to test various theories about infant-parent bonding?
- Experimental
  - Exploratory
  - Grounded theory
  - Quasi-experimental

ANS: C

Grounded theory research is performed to formulate, test, and refine a theory about a particular phenomenon. Experimental and quasi-experimental techniques determine the effectiveness of particular outcomes. Exploratory research is performed to describe a problem or issue. Phenomenological research involves gaining deeper insights into perceptions and values.

DIF: Cognitive level: Applying (Application)

22. What type of qualitative research method would be used to describe and interpret a culture and cultural behavior?
- Grounded theory
  - Ethnographic research
  - Exploratory-descriptive
  - Phenomenological

ANS: B

Ethnographic research was developed by the discipline of anthropology for investigating cultures through an in-depth study of the members of the culture. Grounded theory research is an inductive research technique used to formulate, test, and refine a theory about a particular phenomenon. Exploratory-descriptive qualitative research is conducted to address an issue or problem in need of a solution and/or understanding. Phenomenological research is an inductive, holistic approach used to describe an experience as it is lived by individuals.

DIF: Cognitive level: Understanding (Comprehension)

23. What type of study design would be used to evaluate patient satisfaction in an outpatient clinic?
- Exploratory-descriptive research
  - Outcomes research
  - Qualitative research
  - Phenomenological research

ANS: B

Outcomes research is designed to evaluate patient responses to interventions as well as satisfaction with care. Exploratory-descriptive research is performed to address an issue or problems by describing the problem in detail. Qualitative research is observational and involves describing patients in a particular setting. Phenomenological research involves gaining deeper insights into perceptions and values.

DIF: Cognitive level: Understanding (Comprehension)

24. The nurse researcher wishes to review a body of qualitative studies about women's attitudes toward health care to develop an overall interpretation of these findings. Which type of review will the nurse researcher use?
- Meta-analysis
  - Meta-synthesis
  - Mixed-methods systematic review
  - Systematic review

ANS: B

A meta-synthesis is used to evaluate qualitative studies. Meta-analyses are used to evaluate quantitative studies. A mixed-methods systematic review is used to evaluate a variety of study designs. A systematic review is a structured, comprehensive synthesis of the research literature to determine the best research evidence available to address a healthcare question.

DIF: Cognitive level: Applying (Application)

25. Which type of evaluation of research yields the **most** precise estimates of treatment effects when describing results?
- Meta-analysis
  - Meta-synthesis
  - Mixed-methods systematic review
  - Systematic review

ANS: A

A meta-analysis is conducted to statistically combine or pool the results from previous quantitative studies into a single statistical analysis that provides one of the highest levels of evidence about an intervention's effectiveness. Meta-synthesis is defined as the systematic compiling and integration of qualitative study results to expand understanding and develop a unique interpretation of study findings in a selected area. Mixed-methods systematic reviews might include a variety of study designs, such as qualitative research and quasi-experimental, correlational, and/or descriptive studies. A systematic review is a structured, comprehensive synthesis of the research literature to determine the best research evidence available to address a healthcare question.

DIF: Cognitive level: Understanding (Comprehension)

26. The nurse serves on a committee to develop a clinical protocol to guide dressing changes for methicillin-resistant *Staphylococcus aureus* (MRSA) abscesses. Which is the **most** important type of evidence to consider when formulating this protocol?
- Assertions from a panel of infectious disease physicians about existing protocols to treat this organism
  - A statistical review of experimental studies comparing various dressing change protocols and patient outcomes
  - A systematic review of all nursing and medical literature about the incidence of MRSA infection and various dressing change protocols
  - Studies identifying the correlations between variables such as dressing types and subsequent infection rates

ANS: B

A statistical review of experimental studies is a meta-analysis and is the strongest level of evidence. Expert panel opinions are useful, but do not provide statistically significant evidence about interventions and results. A literature review is an initial step in developing a protocol or designing a study. Correlational studies are not as powerful as experimental studies.

DIF: Cognitive level: Analyzing (Analysis)

27. Knowledge is acquired in nursing in a variety of ways. Which of the following describes when one person credits another as the source of information?
- Borrowing
  - Authority
  - Traditions
  - Personal experience

ANS: B

An authority is a person with expertise and power who is able to influence opinion and behavior. A person is given authority because it is thought that she or he knows more in a given area than others. Borrowing in nursing involves the appropriation and use of knowledge from other fields or disciplines to guide nursing practice. Traditions include "truths" or beliefs based on customs and trends. Personal experience involves gaining knowledge by being personally involved in an event, situation, or circumstance.

DIF: Cognitive level: Understanding (Comprehension)

28. What role will a new nurse graduate who has a BSN expect to play in research?
- Appraising studies and implementing evidence-based guidelines and protocols
  - Developing, evaluating, and revising evidence-based guidelines and protocols
  - None, since the BSN affords limited education on the research process
  - Synthesizing findings and leading healthcare teams to make evidence-based changes

ANS: A

The BSN prepares nurses to read and critically appraise research studies, use best research evidence in practice with guidance, and assist with the implementation of evidence-based guidelines and protocols. Nurses with a MSN are provided the educational preparation to critically appraise and synthesize findings from studies to revise or develop protocols, algorithms, or policies for use in practice. Advanced practice nurses and nurse administrators can lead healthcare teams in making essential changes in nursing practice and in the healthcare system based on current research evidence. DPNs may lead healthcare teams to make evidence-based changes in practice.

DIF: Cognitive level: Understanding (Comprehension)

29. A job description for a nurse position in a teaching hospital includes "coordinating research teams to facilitate studies to generate knowledge about nursing actions." Which type of advanced nursing degree would be required for this position?
- Doctorate of Nursing Practice (DNP)
  - Doctorate in Nursing (PhD)
  - Master of Science in Nursing (MSN)
  - Post-Doctorate in Nursing

ANS: B

PhD-prepared nurses can critique, implement, plan, and develop new or revised guidelines, as well as generate and replicate knowledge via conduction of research. DNP-prepared nurses translate nursing research into practice. MSN-prepared nurses identify problems requiring research and may conduct studies, but usually in collaboration with other nurse scientists. The difference between PhD and post-PhD is unclear—in this situation you are one and the same.

DIF: Cognitive level: Applying (Application)

## MULTIPLE RESPONSE

1. A nurse understands the meaning of entering the world of nursing research to be? **Select all that apply.**
  - a. A way of learning a unique language
  - b. A way of using old experiences to learn
  - c. A new way of experiencing reality
  - d. A new way of learning multiple languages
  - e. A way of incorporating new rules

ANS: A, C, E

Nursing research is considered a “world” that is a truly new way of experiencing reality. Entering a new world means learning a unique language, incorporating new rules, and using new experiences to learn how to interact effectively within the world. The world of nursing research is not a way of using old experiences to learn nor a new way of learning multiple languages.

DIF: Cognitive level: Understanding (Comprehension)

2. Which are components of evidence-based practice (EBP)? **Select all that apply.**
  - a. Best research evidence
  - b. Expert opinion consensus
  - c. Patient needs and values
  - d. Safe, cost-effective care

ANS: A, C, D

Best research evidence is used to formulate EBP; patient needs and values are used to develop EBP; and safe, cost-effective care is a component of EBP. Expert opinion consensus is not a part of EBP.

DIF: Cognitive level: Understanding (Comprehension)

3. A nurse with a Bachelor of Science in Nursing (BSN) is prepared to do which of the following? **Select all that apply.**
  - a. Appraise and summarize research findings.
  - b. Assist with the implementation of evidence-based guidelines.
  - c. Conduct independent nursing studies.
  - d. Expand the body of nursing knowledge through independent research.

ANS: A, B

The BSN-prepared nurse is capable of appraising and summarizing research findings and assists with the implementation of evidence-based guidelines. The BSN-prepared nurse does not conduct independent nursing studies nor expand the body of nursing knowledge through independent research.

DIF: Cognitive level: Understanding (Comprehension)

4. Which of the following are characteristics of quantitative research methods? **Select all that apply.**
  - a. Objective
  - b. Cause and effect relationships
  - c. Tests theory
  - d. Develops theory and frameworks
  - e. Numbers
  - f. Description variables

ANS: A, B, C, E, F

Quantitative research is a formal, objective, systematic process in which numerical data are used to obtain information about the world. Quantitative research is conducted to test theory by describing variables, examining relationships among variables, and determining cause and effect interactions between variables. Qualitative research findings are unique, dynamic, focused on understanding, and facilitate theory development.

DIF: Cognitive level: Understanding (Comprehension)

5. Which of the following is a research question for an experimental study? **Select all that apply.**
  - a. What is it like to live with asthma?
  - b. Do children who have an updated asthma action plan have fewer missed school days caused by asthma?
  - c. Which asthma triggers influence poor attitudes about chronic disease?
  - d. Which bronchodilator medication has fewer side effects?

ANS: B, D

Determining which interventions reduce asthma sick days is a controlled, quantitative, experimental study design; and a study about the effects of a medication is an experimental study. Asking what it is like to live with asthma will generate qualitative data. A study determining relationships between asthma triggers and attitudes about disease is a correlational study.

DIF: Cognitive level: Analyzing (Analysis)