

## **Chapter 01: Discovering the World of Nursing Research**

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### **MULTIPLE CHOICE**

1. Nurses with a bachelor's degree in nursing can participate in the implementation of research into practice. This means that the BSN nurse:
  - a. develops evidence-based guidelines.
  - b. designs research studies on which protocols may be based.
  - c. evaluates and revises evidence-based protocols.
  - d. reads and critically appraises existing studies.

ANS: D

Nurses with a Bachelor of Science in Nursing (BSN) degree have knowledge of the research process and skills in reading and critically appraising studies. They use the best research evidence in practice with guidance. Nurses with a BSN also assist with problem identification and data collection. Nurses with a Master of Science in Nursing (MSN) critically appraise and synthesize findings from studies to revise or develop protocols, algorithms, or policies for use in practice. Nurses with a Doctor of Nursing Practice (DNP) develop, implement, and evaluate evidence-based guidelines. Nurses with a Doctor of Philosophy (PhD) assume a major role in conducting research.

DIF: Cognitive Level: Analysis

2. A study is designed to test the idea of providing companion dogs to elders in a major hospital, in order to determine the effect upon the elders' level of orientation. This type of study can do which of the following?
  - a. Control
  - b. Describe
  - c. Explain
  - d. Predict

ANS: A

Control is the ability to manipulate the situation to produce the desired outcome. Description involves observing and documenting nursing phenomena, providing a snapshot of reality. Explanation clarifies the relationships among concepts and variables with the goal of understanding how they work with each other. Prediction involves estimating the probability of a specific outcome in a given situation.

DIF: Cognitive Level: Application

3. A researcher wants to know whether children with autism who are hospitalized in a pediatric ward will require more hours of nursing care than the average child, when the parents or caregivers are not present. What type of research outcome does this provide?
  - a. Control
  - b. Description
  - c. Explanation
  - d. Prediction

ANS: D

Prediction involves estimating the probability of a specific outcome in a given situation. Control is the ability to manipulate the situation to produce the desired outcome. Description involves observing and documenting nursing phenomena, providing a snapshot of reality. Explanation clarifies the relationships among concepts and variables with the goal of understanding how they work with each other.

DIF: Cognitive Level: Application

4. Despite the presence of an intraventricular drain, the intracranial pressure of a patient in neurological intensive care remains increased. The nurse recalibrates the machine, makes sure the monitor is on the same level as the drain, checks all connections, and then notifies the physician, who comes to the unit and inserts a new drain. What type of reasoning or thinking prompts the nurse to recalibrate, assure proper placement, and check connections?
- Abstract thinking
  - Concrete thinking
  - Logical reasoning
  - Dialectical reasoning

ANS: C

Logical reasoning is used to dissect components of a situation or conclusion, examine each carefully, and analyze relationships among the parts. Abstract thinking is oriented toward the development of an idea without application to, or association with, a particular instance. Concrete thinking is oriented toward and limited by tangible things or by events that are observed and experienced in reality. Dialectical reasoning involves looking at situations in a holistic way.

DIF: Cognitive Level: Application

5. A nurse with considerable clinical expertise develops a policy for managing agitated patients in the Emergency Department. The resultant policy emanates from:
- abstract thinking.
  - concrete thinking.
  - operational reasoning.
  - dialectical reasoning.

ANS: A

Abstract thinking is oriented toward the development of an idea without application to, or association with, a particular instance. Concrete thinking is oriented toward and limited by tangible things or by events that are observed and experienced in reality. Operational reasoning is the identification of and discrimination among many alternatives and viewpoints. Dialectical reasoning involves looking at situations in a holistic way.

DIF: Cognitive Level: Application

6. A nurse with considerable clinical expertise develops a policy for managing agitated patients in the Emergency Department. The type of reasoning the nurse uses to do this is:
- problematic reasoning.
  - operational reasoning.
  - collaborative reasoning.
  - inductive reasoning.

ANS: D

Inductive reasoning involves reasoning that moves from the specific to the general, whereby particular instances are observed and then combined into a larger whole or general statement. Problematic reasoning involves: (1) identifying a problem and factors influencing it, (2) selecting solutions to the problem, and (3) resolving the problem. Operational reasoning involves the identification of and discrimination among many alternatives and viewpoints. Collaborative reasoning occurs when individuals with different perspectives “reason together” to develop a coordinated plan of action.

DIF: Cognitive Level: Synthesis

7. What is the best explanation of the type of intuition that forms a legitimate source of knowledge in nursing?
- It is the result of recognizing patterns in a way that allows rapid conclusions.
  - It is based on a gift from the universe and should be honored when it arrives.
  - It is never inaccurate.
  - It is the process of examining and critiquing one’s thoughts.

ANS: A

Intuition is understanding without rationale. Intuition is described as pattern recognition, seeing similarities and dissimilarities of a situation and seeing the whole in a way that allows rapid conclusions. Because intuition is a type of knowing that seems to come unbidden, it may also be described as a gut feeling, hunch, or sixth sense. Intuition cannot be explained scientifically, therefore many people discount it or are uncomfortable talking about it. Expert nurses are more likely to experience intuition, especially when they connect with their patients and are open to their feelings.

DIF: Cognitive Level: Application

8. Why is operational reasoning necessary for research?
- Abstract concepts are of no use to nursing.
  - Standard interventions are obtained from operational reasoning.
  - It allows the researcher to devise ways to measure the concepts studied.
  - It facilitates the researcher’s rapport with families.

ANS: C

Operational reasoning involves the identification of and discrimination among many alternatives and viewpoints. It focuses on the process (debating alternatives) rather than on the resolution. Nurses use operational reasoning to develop realistic, measurable health goals. In research, operationalizing a treatment or intervention to implement, comparing measurement methods, and debating the appropriate data analysis techniques to use in a study require operational thought.

DIF: Cognitive Level: Application

## MULTIPLE RESPONSE

1. Realistically, what might be done in a situation in which a nurse does not know the appropriate way to use a new ultrasonic bladder scanner (a noninvasive, painless procedure) but has a new order at 2 a.m. to perform a scan? (*Select all that apply.*)

- a. Refuse to carry out the order.
- b. Ask a coworker who has used the equipment.
- c. Access the instructions on the company's Internet site.
- d. Try to scan the bladder and decide if the value obtained makes sense.
- e. Notify the manager that a formal inservice is needed.
- f. Read the instruction booklet.

ANS: B, C, D, F

The nurse can seek out a coworker (an authority) who has expertise with the equipment. The company's Internet site, or instruction booklet, provides a form of education on the skill. Trial and error is an approach with unknown outcomes that is used in a situation of uncertainty, when other sources of knowledge are unavailable. The profession evolved through a great deal of trial and error before knowledge of effective practices was codified in textbooks and journals. The trial-and-error way of acquiring knowledge can be time-consuming, because multiple interventions might be implemented before one is found to be effective. Refusing to carry out the order or asking for a formal in-service is not a realistic solution to the patient's need for a scan.

DIF: Cognitive Level: Application

2. What are the connections between evidence-based practice and nursing research? (*Select all that apply.*)
  - a. Evidence-based care cannot be provided to patients without the nurse understanding something of research.
  - b. A synthesis of current evidence within an area of nursing is used to improve care in that area.
  - c. All patients with a given diagnosis should be cared for based solely on research knowledge.
  - d. The best research evidence, clinical expertise, and patient preferences merge to produced evidence-based practice.
  - e. Nursing research provides evidence that allows us each to practice with the same style and capability.

ANS: A, B, D

Evidence-based practice in nursing requires a strong body of research knowledge that nurses must synthesize and use to promote quality care for their patients, families, and communities. In order to synthesize and use research appropriately, a nurse must understand it. A nurse must explore the best research evidence about a practice problem before using his or her clinical expertise to diagnose and manage an individual patient's health problem. Not all patients are treated in the same way; however, nurses believe that reality varies with perception and that individual truth is relative, so they would not try to impose their views of truth and reality on patients. Rather, they would accept their patients' views of the world and help them seek health from within those worldviews, which is a critical component of evidence-based practice.

DIF: Cognitive Level: Analysis

3. What might a nursing research study address? (*Select all that apply.*)
  - a. Whether having a nurse practitioner manage care is effective in decreasing length-of-stay
  - b. Whether nursing students learn better in an online course format, or by actual

- lecture attendance
- c. Comparison of four types of leadership used by nurse managers, and comparison of their employees' job satisfaction, absenteeism rates, and error rates
  - d. Three different commonly performed surgical procedures and the mortality rate of each
  - e. Learning specific things about the liver failure patient that can be applied to nursing practice

ANS: A, B, C, E

Nursing research is defined as a scientific process that validates and refines existing knowledge and generates new knowledge that directly and indirectly influences the delivery of evidence-based nursing. Many nurses hold the view that nursing research should focus on acquiring knowledge that can be directly implemented in clinical practice, which is sometimes referred to as applied research or practical research. Some nurses may not see the value of basic research that is not immediately applicable to practice. However, research to determine effective teaching-learning strategies, the resources needed for effective nursing teams, and the strategies to prevent burnout are critical to having an adequate number of well-prepared nurses to provide high-quality care.

DIF: Cognitive Level: Application

4. Which of these are suitable foci for a nursing research study? (*Select all that apply.*)
- a. The ways in which clinical nurse specialists contribute to patient outcomes
  - b. Which elements of a nursing school curriculum remain useful for current practice, after students graduate
  - c. Whether requiring nurse managers to supervise more than four units is cost effective
  - d. What styles of physician teaching produce better diabetic compliance
  - e. Whether patients with exacerbation of CHF are best managed with inpatient or outpatient treatment
  - f. What the personality characteristics are of nurses in various inpatient areas

ANS: A, B, C, F

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DIF: Cognitive Level: Application

5. Which of the following sources generate new knowledge for nurses? (*Select all that apply.*)
- a. Editorials in nursing journals
  - b. Qualitative research
  - c. Adherence to hospital policies
  - d. Research that tests a new sling scale for safety of patients and nurses
  - e. Quantitative research

f. Comparison of two different insulin-dosing protocols

ANS: B, D, E

Nursing research is defined as a scientific process that validates and refines existing knowledge and generates new knowledge that directly and indirectly influences the delivery of evidence-based nursing. Nurses use a variety of research methods to test their reality and generate nursing knowledge including: quantitative research, qualitative research, outcomes research, and mixed methods research.

DIF: Cognitive Level: Application

6. How are dialectic reasoning and holistic practice similar? (*Select all that apply.*)
- They are both based on intuition, not facts.
  - They both consider the whole, rather than one part of the picture.
  - Dialectic reasoning emphasizes truth, and holistic practice accepts untruth.
  - They both ignore the main idea or diagnosis and concentrate on different entities.
  - They both honor context and the interactions among ideas and people.
  - They both break down concepts into understandable parts.
  - Dialectic reasoning can be used to validate a study design whereas holistic practice does not contribute to research.

ANS: B, E, F

Dialectic reasoning involves looking at situations in a holistic way. A dialectic thinker believes that the whole is greater than the sum of the parts and that the whole organizes the parts.

DIF: Cognitive Level: Synthesis

7. In nursing mentorship, as opposed to authority, the novice nurse fills which of the following roles? (*Select all that apply.*)
- Counselor
  - Student
  - Sponsor
  - Disciplinarian
  - Teacher
  - Questioner
  - Apprentice

ANS: B, F, G

An accentuated form of role-modeling is mentorship. In a mentorship, the expert nurse—or mentor—serves as a teacher, sponsor, facilitator, clinical guide, and preceptor for the novice nurse (or mentee). The mentee imitates and internalizes the values, attitudes, and behaviors of the mentor while gaining intuitive knowledge and personal experience.

DIF: Cognitive Level: Analysis

8. What is the hospitalized patient's place in evidence-based practice? (*Select all that apply.*)
- The patient is the recipient of the total of formal research evidence and the nurse's clinical expertise, and these represent his or her care plan.
  - The patient brings values to the clinical encounter, which the nurse considers in providing evidence-based care.

- c. The patient's views of truth and reality must mirror the nurse's own worldviews for evidence-based practice to occur.
- d. The patient is the focus of research, serving both as a recipient of evidence-based research and the subject of future evidence, based on data collected now from the patient.
- e. The patient's needs and values merge with best research and clinical expertise to produce evidence-based practice.

ANS: B, E

Nurses understand that reality varies with perception and that individual truth is relative.

Consequently, they would not try to impose their views of truth and reality on patients.

Rather, they would accept patients' views of the world and help them seek health from within those worldviews, which is a critical component of evidence-based practice. The best research evidence, clinical expertise, and patient needs and values merge to produce evidence-based practice.

DIF: Cognitive Level: Analysis

## Chapter 02: Evolution of Research in Building Evidence-Based Nursing Practice

### Gray: Burns and Grove's The Practice of Nursing Research, 9th Edition

#### MULTIPLE CHOICE

1. In which way did Florence Nightingale contribute most substantially to evidence-based practice?
  - a. She conducted outcomes research about the power of nursing for creating change.
  - b. She was the first woman elected to the Royal Statistical Society.
  - c. She collected and analyzed data that changed the care of hospitalized soldiers.
  - d. She calculated mortality rates under varying conditions.

ANS: C

Nightingale collected data on soldier morbidity and mortality rates and the factors influencing them and presented her results in tables and pie charts, a sophisticated type of data presentation for the period. Nightingale's research enabled her to instigate attitudinal, organizational, and social changes. She changed the attitudes of the military and society toward the care of the sick. The military began to view the sick as having the right to adequate food, suitable quarters, and appropriate medical treatment, which greatly reduced the mortality rate.

DIF: Cognitive Level: Application

2. If a nurse manager wants to study how well last year's policies governing implementation of a "bundle" of interventions to prevent cross-contamination of MRSA has been working in the manager's units, which of the following strategies would the manager be most likely to use?
  - a. Outcomes research
  - b. Mixed methods research
  - c. Ethnographic research
  - d. Experimental research

ANS: A

Outcomes research emerged as an important methodology for documenting the effectiveness of healthcare services in the 1980s and 1990s. This type of research evolved from the quality assessment and quality assurance functions that originated with the professional standards review organizations (PSROs) in 1972. During the 1980s, William Roper, the director of the Health Care Finance Administration (HCFA), promoted outcomes research for determining the quality and cost-effectiveness of patient care. Mixed methods research is conducted when the study problem and purpose are best addressed using both quantitative and qualitative research methodologies. Ethnography attempts to tell the story of people's daily lives while describing the culture in which they live. Experimental research is an objective, systematic, controlled investigation conducted for the purpose of predicting and controlling phenomena. This type of research examines causality through rigorous control of variables.

DIF: Cognitive Level: Analysis

3. A researcher publishes a paper describing and explaining how faith, pain, adherence to therapy, and meditation interact during the rehabilitation process. The description of the process is based on many interviews the researcher conducted with persons during and following rehabilitation experiences. Which type of methodology did this research employ?