

**MULTIPLE CHOICE**

1. The first step in the evidence-based process is to
  - a. form a team of health care providers.
  - b. retrieve evidence.
  - c. select an EBP topic.
  - d. critically appraise evidence.

ANS: C

The steps for EBP are: select an EBP topic, form a team, evidence retrieval, critical appraisal of evidence, evidence synthesis, set forth EBP recommendations, decision to change practice, convey EBP recommendations to local standards, policies or procedures, implement practice change, evaluation, and dissemination.

2. Which agency is the National Guideline Clearinghouse of publicly available database of evidence-based clinical practice guidelines and related documents?
  - a. The Institute for Healthcare Improvement (IHI)
  - b. The Joint Commission on the Accreditation of Healthcare Organizations (JCAHO)
  - c. The United States Preventative Services Task Force (USPSTF)
  - d. The Agency for Healthcare Quality and Research (AHRQ)

ANS: D

AHRQ provides a variety of EBP function including serving as the National Guideline Clearinghouse: publicly available database of evidence-based clinical practice guidelines and related documents. Updated weekly with new content, NGC provides an accessible mechanism for obtaining objective, detailed information on clinical practice guidelines to further dissemination, and implementation. Examples of IHI Evidence-Based Standards or Recommendations include development of a patient and family-centered ICU, Communication about end-of-life care, the opioid crisis and building systems of safety. Examples of JCAHO Evidence-Based Standards or Recommendations include fall prevention, patient/family education, prevention of CAUTI, and prevention of medication errors. The USPSTF assigns recommendations for prevention and evidence-based health care a letter grade (an A, B, C, or D grade or an I statement) based on strength of the evidence and balance of benefits and harms of a preventive service. The Task Force does not consider costs of a preventive service when determining a recommendation grade.

3. Which of the following statements comparing evidence-based practice to the conduction of research is true?
  - a. EBP poses research questions or hypotheses that advance the state of the science.
  - b. The purpose of EBP is to gain knowledge/science generation.
  - c. Standardized-dependent measures with known reliability and validity are used as evaluation methods for EBP.
  - d. EBP evaluation includes quality improvement metrics that address both processes of care and patient outcomes.

ANS: D

Conduct of research poses research questions or hypothesis that advance the state of the science. The purpose of an EBP clinical question or purpose of the EBP project is derived from the PICO. Application of research findings and/or other evidence in local practice and/or communities is another purpose of EBP. Standardized-dependent measures with known reliability and validity are used as evaluation of conduction of research.

4. Which of the following is an example of an evidence-based practice approach?
  - a. Smoking cessation reports from participants for 6 months prior to implementation, mid-way during implementation (3 months), and following implementation of a “Stop Smoking” program
  - b. Comparison of blood pressure in one group who walk 20 minutes a day/5 days a week versus another group who are sedentary
  - c. Measuring heart rate on volunteers who listen to music prior to sleep versus volunteers who do not listen to music prior to sleep
  - d. Comparison of patient satisfaction scores from two medical surgical units over a 3-month period

ANS: A

The approach in EBP is a nonresearch design. For a specific period of time measures are tracked pre-implementation, during implementation, post-implementation. The other responses are examples of the conduct of research approach which is aligned with the research questions/hypotheses (e.g., observational; RCT; step-wedge design).

5. Which of the following is the best description of translational research? Translational research
- is the systematic investigation of a phenomenon to answer research questions or hypotheses that advances the state of the science.
  - focuses on the generation and synthesis of evidence that compares benefits and harms of alternative methods to prevent, diagnose, treat, and monitor a clinical condition, or to improve the delivery of care.
  - is a dynamic continuum from basic research through application of research findings in practice, communities, and public health settings to improve health and health outcomes, progresses across five phases.
  - is a field of science that focuses on testing implementation interventions to improve uptake and use of evidence to improve patient outcomes and population health, and explicate what implementation strategies work for whom, in what settings, and why.

ANS: C

Conduct of research is the systematic investigation of a phenomenon to answer research questions or hypotheses that advances the state of the science. Comparative effectiveness research (CER) focuses on the generation and synthesis of evidence that compares benefits and harms of alternative methods to prevent, diagnose, treat, and monitor a clinical condition, or to improve the delivery of care. Implementation science (also called translation science) is a field of science that focuses on testing implementation interventions to improve uptake and use of evidence to improve patient outcomes and population health, and explicate what implementation strategies work for whom, in what settings, and why.

6. Which statement regarding evidence-based practice is true?
- The nursing profession is the sole contributor and user of EBP.
  - Evidence-based practice and conduct of research have distinct purposes, questions, approaches, and evaluative measures.
  - Teams working with EBP should consist of only health care providers.
  - EBP and translation science are interchangeable terms.

ANS: B

Participation in and contribution to EBP is essential for many professionals to plan, provide, and evaluate optimal care. The application of evidence to improve quality of care and patient outcomes is central to health care improvement. The national agenda for EBP is clearly in the forefront of health care. When considering members of the EBP team, consideration should be given to including lay-persons who have experience with the selected topic. Involving consumers may increase their understanding of why certain EBPs are used in what circumstances and why they are important. EBP and translation science are not interchangeable terms. Translational science is a dynamic continuum from basic research through application of research findings in practice, communities, and public health settings to improve health and health outcomes, progresses across five phases.

7. Leaders of health care systems have an opportunity to promote an organizational culture that makes evidence-informed leadership decisions, and creates evidence-based practice environments to promote high quality, safe patient care by doing which of the following?
- Creating and enacting an organizational mission, vision, and strategic plan that incorporates evidence-based practice
  - Developing and implementing performance expectations for all staff that include evidence-based practice work
  - Integrating the work of evidence-based practice into the governance structure of the health system
  - All of the above

ANS: D

Evidence is now available for a variety of topics to inform leadership and administrative decision-making (e.g., staff turnover, staff performance, optimizing staffing patterns). Therefore, the leaders of your health care system have an accountability to promote an organizational culture that makes evidence-informed leadership decisions, and creates evidence-based practice environments to promote high quality, safe patient care. This includes: creating and enacting an organizational mission, vision, and strategic plan that incorporates EBP; developing and implementing performance expectations for all staff that include EBP work; integrating the work of EBP into the governance of the health system; role modeling the value of EBP through administrative behaviors; and establishing explicit expectations that nurse leaders create microsystems that value and support clinical inquiry.

8. Expectations of doctoral prepared nurses in the area of evidence-based practice include
- development, implementation, and evaluation the effect of EBP programs at the organization and system levels.
  - design, direct, and evaluate quality improvement methodologies to promote safe, timely, effective, efficient, equitable, and patient-centered care.
  - explication of the return on investment of EBP.
  - All of the above

ANS: D

Nurses with doctorates of nursing practice (DNPs) are expected to: be experts in EBP; possess the knowledge and skills of Master's prepared nurse's as well as being knowledgeable about the latest evidence for their patient populations; developing, implementing, and evaluating the effect of EBP programs at the organization, and system level; designing, directing, and evaluating quality improvement methodologies to promote safe, timely, effective, efficient, equitable, and patient-centered care; explicate the return on investment of EBP; negotiate systems changes that foster practice climates for EPB; negotiate systems changes that foster practice climates for EBP; and role model knowledge and skills of EBP.

9. The first step of EBP is?
- Topic selection
  - Evidence synthesis
  - Form a team
  - Evidence retrieval

ANS: A

EBP steps include: select an EBP topic, form a team, evidence retrieval, critical appraisal of the evidence, evidence synthesis, set forth evidence-based practice recommendations, decision to change practice, convert EBP recommendations into local standards policies or procedures, implement the practice change, evaluation, and dissemination.

10. Which of the following were seminal projects that laid the groundwork for application of research findings in practice to improve patient care, known today as evidence-based practice (EBP)?
- Western Interstate Commission for Higher Education in Nursing (WICHEN) regional program on nursing research development
  - Nursing Child Assessment Satellite Training project (NCAST)
  - Moving New Knowledge into Practice Project
  - All of the above

ANS: D

Seminal projects that laid the groundwork for application of research findings in practice to improve patient care, known today as evidence-based practice (EBP) include: Conduct and Utilization of Research in Nursing (CURN) project, Western Interstate Commission for Higher Education in Nursing (WICHEN) regional program on nursing research development, Nursing Child Assessment Satellite Training project (NCAST), Moving New Knowledge into Practice Project, and Orange County Research Utilization in Nursing Project.

11. Evidence-based practice involves
- the systematic investigation of a phenomenon to answer research questions.
  - a hypothesis that generates new knowledge and advances the state of the science.
  - conscientious and judicious use of current best evidence in conjunction with clinical expertise, patient values, and circumstances to guide health care decisions.
  - use of tools to collect data with demonstrated reliability and validity.

ANS: C

Evidence-based practice and conduct of research have distinct purposes, questions, approaches, and evaluation methods. Conduct of research is the systematic investigation of a phenomenon to answer research questions or hypotheses that generate new knowledge and advance the state of the science. Randomized controlled trials are often evaluated in conduct of research aiming to advance science. Tools with demonstrated reliability and validity are used to collect and compare data. Findings of conduct of research are often disseminated at scientific conferences and in scientific journals.

12. Which of the following is *not* a component of *structure-process-outcome*?
- Structure
  - Process
  - Outcome
  - Hypothesis

ANS: D

Components of structure-process-outcome include: *structure*—the physical and organizational components of care delivery such as facilities, equipment, and staffing, *process*—services and treatments patients receive, and *outcomes*—effect that the processes of care have on patients and populations. Hypothesis development and evaluation is a component of conduct of research.

## TRUE/FALSE

1. Members of evidence-based practice teams should consist solely of practicing health care providers?

ANS: F

The composition of an EBP team varies on the question being asked, the patient population, and the anticipated resources needed. Potential EBP teams can be comprised of a broad array of health professionals including, but not limited to nurses, nurse practitioners and midwives, physicians, physician assistants, social workers, pharmacists, as well as occupational and physical therapists. Other potential members who have important contributions to make such as QI specialists, staff from infection control or finance, health science librarians, or IT support staff may be considered. Depending on the patient population and practice setting, point-of-care providers such as care coordinators, patient navigators, and community health workers also may offer important contributions to the EBP Team.

Consideration should be given to including a lay-person who has experience with the topic on the EBP team. Lay-people can lend their expertise as recipients of health care and provide input into practices important to them. Involving consumers may increase their understanding of why certain EBPs are used in what circumstances and why they are important. Consumers may be helpful in championing the use of EBPs, and consumers may provide insights into evaluation components of EBP.

2. Despite the availability of evidence-based recommendations for practice, the 2014 National Healthcare Quality and Disparities Report demonstrated that evidence-based care is delivered only 70% of the time?

ANS: T

Despite the availability of evidence-based recommendations for practice, the 2014 National Healthcare Quality and Disparities Report demonstrated that evidence-based care is delivered only 70% of the time, an improvement of just 4% since 2005.

3. Nursing research began in the 1970s.

ANS: F

Nursing research was pioneered by Florence Nightingale in the mid-1800s. Nightingale used data to change practices that contributed to high mortality rates in hospitals and communities.

4. When planning for implementation of evidence-based practice, the value of the EBP practice topic as perceived by users and stakeholders is the only factor which determines the rate and extent of adoption.

ANS: F

When planning for implementation of EBPs, it is not just the importance or value of the evidence-based practice topic as perceived by users and stakeholders that will influence their adoption. It is the interaction among the characteristics of the evidence-based practice topic, the intended users, and a particular context of practice that determines the rate and extent of adoption.

5. Quality improvement emphasizes customer satisfaction, teams and teamwork, and the continuous improvement of work processes.

ANS: T

Quality improvement (QI) is both a philosophy of organizational functioning and a set of analysis tools and change techniques to reduce variations in the quality of care provided by health care organizations. QI emphasizes customer satisfaction, teams and teamwork, and the continuous improvement of work processes. Other defining features include: setting organizational performance goals and expectations, use of data to make decisions, and standardization of work processes to reduce variation across providers and service encounters.

6. Evidence-based practice is a type of quality improvement that focuses on implementing evidence-based processes of care to improve patient outcomes and population health.

ANS: T

Evidence-based practice is a type of quality improvement that focuses on implementing evidence-based processes of care to improve patient outcomes and population health.

7. Translational science provides a scientific base for guiding the selection of implementation strategies to promote adoption of evidence-based practice in real-world settings.

ANS: T

Translational science provides a scientific base for guiding the selection of implementation strategies to promote adoption of evidence-based practice in real-world settings.