

Chapter 02: Models and Evidence

LoBiondo-wood: Evidence-Based Practice for Nursing and Health Care Quality Improvement, 1st Edition

MULTIPLE CHOICE

1. Which of the following is an example of a problem-focused trigger?
 - a. How often should a patient ambulate after abdominal surgery to prevent pneumonia?
 - b. How often should blood glucose monitoring be recorded for a non-diabetic patient receiving total parenteral nutrition?
 - c. How long should a patient be maintained on nothing by mouth status after endotracheal extubation?
 - d. Should patients with acute coronary syndrome wear sequential compression hose to prevent deep vein thrombosis?

ANS: D

Problem-focused triggers are those identified by staff through quality improvement, risk surveillance, benchmarking and financial data, or recurrent clinical problems.

Knowledge-focused triggers arise when health providers hear scientific presentations, read research articles, or published evidence-based practice guidelines and question practice.

2. Which of the following are clinical questions derived from the problem?
 - a. Therapy
 - b. Harm
 - c. Diagnosis
 - d. Prognosis
 - e. Meaning
 - f. All of the above

ANS: F

There are five types of clinical questions derived from the problem: therapy—question focuses on determining the effect of an intervention(s) on patient outcomes; harm—question focuses on the potential harm of a symptom or group of symptoms, disorder, treatment, or intervention; diagnosis—question focuses on the establishment of the power of a test to differentiate between those with the disease or problem and those who do not experience the problem; prognosis—question focuses on a patient’s likely course for a disease state or factors that may alter a prognosis; meaning—question focuses on the situation or processes related to how people experience, cope or adapt to conditions, illnesses, or circumstances.

3. Which of the following questions should be considered when identifying key stakeholders for an evidence-based practice team?
 - a. Who is likely to lead and champion implementation of the practice?
 - b. Who can influence the decision to proceed with implementation of the practice, either positively or negatively?
 - c. What type of cooperation is needed from stakeholders for the practice change to be successful?
 - d. All of the above

ANS: D

Questions to consider in identification of key stakeholders include: How are decisions made in the area where the evidence-based practice will be implemented; What types of unit or system changes will be needed; Who is involved in decision-making; Who is likely to lead and champion implementation of the practice; Who can influence the decision to proceed with implementation of the practice, either positively or negatively; What type of cooperation is needed from stakeholders for the practice change to be successful?

4. Which of the following is *not* a component of the PICO Model?
 - a. Population
 - b. Intervention
 - c. Cash flow
 - d. Outcome

ANS: C

Components of the PICO Model include P—patient, population, problem; I—intervention, prognostic factor, exposure; C—comparison or intervention; and O—outcome you would like to measure or achieve.

5. In most evidence hierarchies, which of the following study types is considered to be the top of the pyramid and to be more rigorous and hence more likely to minimize the effect of bias on the results of the study?
 - a. Expert opinion
 - b. Systematic reviews
 - c. Randomized controlled trials
 - d. Case controlled studies

ANS: B

Systematic reviews are considered to be at the top of the pyramid in most evidence hierarchies and are a more rigorous methodology and hence more likely to minimize the effect of bias on the results of the study. The order then follows randomized controlled studies, case controlled studies, and expert opinion.

6. Before critically appraising research, it is suggested to read/critique which types of the following articles first?
 - a. Clinical and theory articles to understand the state of the practice and theoretical perspectives and concepts that may be encountered in critiquing studies
 - b. Meta-analyses, systematic and integrative reviews to understand the state of the science
 - c. Evidence-based practice guidelines and evidence reports
 - d. Research articles

ANS: A

It is helpful to read/critique articles in the following order: (1) clinical and theory articles to understand the state of the practice and theoretical perspectives and concepts that may be encountered in critiquing studies; (2) meta-analyses, systematic and integrative reviews to understand the state of the science; (3) evidence-based practice guidelines and evidence reports; (4) research articles.

7. A group approach to critical appraisal is recommended because
 - a. the leader assumes most of the workload.
 - b. those responsible for implementing the changes have an opportunity to understand

- the scientific base for the practice change.
- c. financial-based information is obtained to advocate for the change.
- d. the group is composed of experienced individuals which saves valuable time.

ANS: B

A group approach to critical appraisal is recommended because it distributes the workload, helps those responsible for implementing the changes to understand the scientific base for the practice change, arms nurses with citations and research-based language to use in advocating for changes with peers and other disciplines, and provides novices with an environment to learn critical appraisal and application of research findings.

8. Factors to consider in the synthesis of findings include all of the following *except*
- a. overall scientific merit.
 - b. relevance of the study to the question topic.
 - c. incorporation of findings to current policies and procedures.
 - d. comparison of types of subjects enrolled and their similarity to the patient population to which the findings will be applied.

ANS: C

Factors that should be considered for inclusion of studies in the synthesis of findings include: overall scientific merit; type of subjects enrolled (e.g., age, gender, pathology) and the similarity to the patient population to which the findings will be applied; as well as relevance of the study to the question topic.

9. Essential information to include in a summary table consists of which of the following?
- a. Research questions/hypotheses
 - b. Independent and dependent variables studied
 - c. Description of the study sample and setting
 - d. Type of research design
 - e. Methods used to measure each variable and outcome
 - f. All of the above

ANS: F

Essential information to include in a summary table consist of: research questions/hypothesis; independent and dependent variables studied; description of the study sample and setting; type of research design; methods used to measure each variable and outcome; study findings as well as strengths and weaknesses of each study.

TRUE/FALSE

1. The EBP process uses a clinical question to search the published literature for completed studies in order to bring about improvements in care?

ANS: T

EBP process uses a clinical question to search the published literature for completed studies in order to bring about improvements in care.

2. Translation science focuses on testing the implementation of interventions to improve uptake and use of evidence to improve patient outcomes and population health, as well as to clarify what implementation strategies work for whom, in what settings, and why.

ANS: T

Translation science focuses on testing the implementation of interventions to improve uptake and use of evidence to improve patient outcomes and population health, as well as to clarify what implementation strategies work for whom, in what settings, and why.

3. *Problem-focused triggers arise when health care providers hear scientific presentations, read research articles, or published evidence-based practice guidelines and question practice.*

ANS: F

Problem-focused triggers are those identified by staff through quality improvement, risk surveillance, benchmarking and financial data, or recurrent clinical problems.

Knowledge-focused triggers arise when health providers hear scientific presentations, read research articles, or published evidence-based practice guidelines and question practice.

4. A *stakeholder* is a key individual or group of individuals who will be directly or indirectly affected by the implementation of the evidence-based practice.

ANS: T

A *stakeholder* is a key individual or group of individuals who will be directly or indirectly affected by the implementation of the evidence-based practice.

5. When forming an evidence-based practice team, resistors to the change may be valuable members to include.

ANS: T

Stakeholders who can facilitate an evidence-based practice project or create barriers that preclude successful implementation should be identified. Some of these stakeholders may be members of the team. Others may not be team members but are key individuals within the organization or unit who can adversely or positively influence the adoption of the practice.

6. It is suggested that evidence retrieval be completed prior to the PICO process.

ANS: F

Relevant research and related literature need to be retrieved after a clinical question (PICO) is developed.

7. There is no consensus among professional organizations or across health care disciplines regarding the best system to use for grading the type and quality of research evidence.

ANS: T

There is no consensus among professional organizations or across health care disciplines regarding the best system to use for grading the type and quality of research evidence.

8. The first step in grading the evidence of a study is to identifying the level of evidence according to the design of the study.

ANS: T

The first step in grading the evidence of a study is to identifying the level of evidence according to the design of the study.

9. Before the body of evidence can be evaluated, the team needs to evaluate the scientific merit of the studies and other evidence sources found in the literature search.

ANS: T

Before the body of evidence can be evaluated, the team needs to evaluate the scientific merit of the studies and other evidence sources found in the literature search.

10. A summary table consists of two items; (1) the overall strengths and (2) the overall weakness of the studies as a group.

ANS: F

A summary table consists of a number of content areas to identify commonalities and differences across studies regarding study findings, the types of patients to which findings can be applied. A well-done table also provides a synthesis of the overall strengths and weakness of the studies as a group.

11. Focus groups are a useful way to provide discussion about the evidence-based practice and to identify key areas that may be potentially troublesome during the implementation phase.

ANS: T

Focus groups are a useful way to provide discussion about the evidence-based practice and to identify key areas that may be potentially troublesome during the implementation phase.