Chapter 02

Multiple Choice
Identify the choice that best completes the statement or answers the question.

____ 1. Research that directly takes knowledge from bench to bedside is known as?
a. The scientific method
b. Basic research
c. Evidence-based practice
d. Translational research

____ 2. A study that attempts to be more generalizable to practice than research settings is known as a(n):
a. Efficacy study
b. Effectiveness study
c. Randomized trial
d. Translational research

____ 3. Efficacy research utilizes all of the following except?
a. Human subjects
b. Random assignment to groups
c. Broad treatment protocols
d. Strict inclusion and exclusion criteria

____ 4. Which of the following is an example of an efficacy study?
a. Randomized controlled trial
b. Observational research
c. Clinical effectiveness research
d. Outcomes research

____ 5. A translational research study that translates research evidence to practice is classified in which translation block?
a. T1
b. T2
c. T3
d. T4

____ 6. A T2 translational study focuses on translation to which of the following blocks?
a. Humans
b. Populations
c. Patients
d. Practice

____ 7. Comparative effectiveness studies generally include all of the following except?
a. A control group
b. Few exclusion criteria
c. Flexible protocols
d. Diverse treatment settings

____ 8. Studies that focus on the impact of results of health care practices and interventions are known as?
a. Implementation research
b. Outcomes research
c. Efficacy research
d. Translational research

____ 9. Which of the following is concerned with studying the methods of how research evidence is adopted into clinical practice?
a. Implementation research
b. Outcomes research
c. Efficacy research
d. Translational research

____ 10. Which of the following best describes the use of patient-reported outcome measures (PROM) in pragmatic trials?
a. They do not correlate with movement
b. They measure things that a patient may care about
c. They are not reliable
d. They measure changes in the disease-status

Chapter 02
Answer Section

MULTIPLE CHOICE

1. ANS: D
   Rationale: Translational research refers to the direct application of scientific discoveries into clinical practice.

   DIF: Easy OBJ: 1
2. ANS: B
   Rationale: Effectiveness studies are conducted in real-world conditions as compared to the ideal conditions of efficacy studies, such as randomized trials. This makes them more generalizable to clinical practice. Translational research may include both efficacy and effectiveness studies.

   DIF: [Difficulty level] OBJ: 2
3. ANS: C
   Rationale: Efficacy research will have specific well-defined treatment protocols in order to investigate a cause and effect relationship. Broad treatment protocols are found more frequently in effectiveness studies. Although broad treatment protocols may be more reflective of clinical practice, they may introduce bias in determining if the treatment caused the outcome.

   DIF: Easy OBJ: 2,3
4. ANS: A
   Rationale: A randomized trial attempts to minimize potential sources of bias and is considered an efficacy study. The other options are examples of effectiveness studies.

   DIF: Easy OBJ: 2
5. ANS: C
   Rationale: T3 studies translate evidence to practice to asses if a treatment will work in real-world conditions. See figure 2-1 for more information.

   DIF: Easy OBJ: 4
6. ANS: C
   Rationale: A T2 study frequently utilized randomized controlled trials to demonstrate a treatment can work with patients under ideal-conditions. T1 focuses on translation to humans to show a treatment can work. A T3 study is concerned with translation to practice and the focus of a T4 study is populations.

   DIF: Moderate OBJ: 4

7. ANS: A
   Rationale: A control group is a hallmark of a randomized trial to demonstrate the efficacy of an intervention. In contrast, comparative effectiveness studies focus on comparing two or more treatments directly. Comparative effectiveness studies utilize few exclusion criteria, flexible protocols and diverse treatment settings to make them more generalizable to real-world practice settings.

   DIF: Moderate OBJ: 5
8. ANS: B
   Rationale: Outcomes research is an umbrella term to describe studies that focus on the impact of results of health care practices and interventions.

   DIF: Easy OBJ: 6
9. ANS: A
   Rationale: Implementation science is the next step beyond effectiveness research. This type of research is concerned about how to make things happen in practice by better understanding the influences of the environment and resources on the uptake of the research into practice.

   DIF: Easy OBJ: 7
10. ANS: B
    Rationale: Pragmatic trials frequently use patient reported outcome measures because they measure things a patient would care about such as quality of life and function. These outcomes come directly from the patient and not from the clinician or a laboratory test. They can have good psychometric properties and can correlate with objective measures of movement and function.

    DIF: Moderate OBJ: 6, 2, 3