

## Chapter 2: Use of Statistics in Evidence-Based Practice

### Multiple Choice Questions

1. Evidence-base practice:
  - a. Is a list of empirically supported interventions that practitioners should employ regardless of their practice judgment.
  - \*b. Is a process for making practice decisions based on integrating the best research evidence with practice expertise and knowledge of client attributes.
  - c. Is a process for making practice decisions based solely on research evidence.
  - d. Assures practice effectiveness.

ANS: B      PG: 12

2. EBP questions can ask:
  - a. What intervention has the most likelihood of success?
  - b. What factors best predict desirable or undesirable outcomes?
  - c. What type of assessment tool should be used?
  - \*d. All of these.

ANS: D      PG: 13

3. Which of the following statements is true about searching for evidence in the second phase of the EBP process?
  - \* a. You might have to try different search terms before finding what you need.
  - b. It is a bad idea to start your search by going to the websites of the Cochrane Collaboration or the Campbell Collaboration.
  - c. Professional literature databases should be avoided.
  - d. All search engines will immediately connect you to original research studies that you can read in their entirety.

ANS: A      PG: 13

4. Which of the following statements is true about published research studies?
  - \*a. Some published research studies are fatally flawed.
  - b. Being published ensures that a research study is scientifically rigorous.
  - c. To be useful, research studies should be flawless.
  - d. Although some published studies might have minor flaws, none will be fatally flawed.

ANS: A      PG: 14

5. Which of the following statements is true about selecting and implementing interventions supported by research evidence?
- a. The best scientific evidence should dictate the choice of intervention.
  - \*b. No matter how strong an intervention's evidence might be, that intervention is likely to be inapplicable for some clients.
  - c. Once the intervention is chosen and implemented, the EBP process is concluded.
  - d. None of these.

ANS: B      PG: 14

6. Which of the following statements is true about research evidence?
- a. The best evidence available must be strong evidence based on studies that are virtually flawless.
  - b. Interventions with very strong supporting evidence can be assumed to be effective when you implement them.
  - c. If you can find no persuasive research evidence for any intervention applicable to your target problem, and you therefore must intervene in the absence of supporting evidence, the fifth stage of the EBP process (evaluating outcome) is no longer relevant or needed.
  - \*d. No matter how strong the evidence that supports your chosen intervention may be, you should evaluate whether it achieves the intended outcome when you implement it.

ANS: D      PG: 14

7. Descriptive statistics:
- a. Tell us the probability that a given result can be attributed to chance.
  - \*b. Can include frequency distributions or measures of central tendency and dispersion.
  - c. Typically involve analysis of variance (ANOVA).
  - d. All of these.

ANS: B      PG: 15

8. Inferential statistics:
- a. Are limited to describing a population.
  - b. Always require the use of parametric tests.
  - c. Always require the use of nonparametric tests.
  - \*d. Tell us the probability that a given result can be attributed to chance.

ANS: D      PG: 16

9. Which of the following statements is correct about evidence-based practice?
- a. It is a process.
  - b. It is a list of interventions that will be effective with every client.
  - c. It refers to decisions about intervention effectiveness, only.
  - d. Idiosyncratic client attributes should be ignored when selecting the best intervention

ANS: A      PG: 12-13

10. Which of the following statements is correct about evidence-based practice?
- a. It is mainly a cost cutting tool.
  - b. It does not allow room for practitioner expertise to overrule the best evidence.
  - c. It calls for practitioners to make practice decisions based on the integration of their practice expertise, their knowledge of client attributes, and the best research evidence.
  - d. It has only two stages.

ANS: C      PG: 13-14

11. When searching for evidence, you should:
- a. Refrain from looking at web sites
  - b. Use only one search term.
  - c. Avoid systematic reviews.
  - d. Examine the Cochrane and Campbell Collaboration resources.

ANS: D      PG: 13-14

### **True-False Questions**

T 1. EBP is a process for integrating the most rigorous research evidence with practice expertise and knowledge of client attributes in making practice decisions.

PG: 12

F 2. EBP is a process for making practice decisions based solely on research evidence.

PG:12

T 3. The type of EBP question you ask and your practice role will influence the specific types of statistics you are likely to encounter and how much technical detail you'll need to know about those statistics.

PG: 15

F 4. EBP is a list of empirically supported interventions that practitioners should employ regardless of their practice judgment.

PG: 12

F 5. EBP questions always focus on choosing an intervention.

PG: 13

T 6. An expedient way to start searching for evidence is by going to the website of the Cochrane Collaboration or the Campbell Collaboration.

PG: 14

T 7. Some published research studies are much more flawed than others.

PG: 14

T 8. Inferential statistics tell us the probability that a given result can be attributed to chance.

PG: 16

T 9. Meta-analyses review systematically existing studies and aggregate their statistical results.

PG: 17

T 10. Effect size statistics compare the relative strength of effects of different interventions.

PG: 16

### **Essays**

1. Explain the role of practice expertise in the EBP process and why that role is important.
2. Explain why defining EBP in terms of a list of empirically supported interventions can influence practitioners to view EBP negatively.
3. Explain the importance of evaluating outcome in the fifth stage of the EBP process.
4. Explain why it is reasonable to wonder whether an intervention that has the best research evidence really will be effective with a particular client.
5. Briefly describe the difference between the purposes of descriptive and inferential statistics.