CHAPTER 2
BASIC PRINCIPLES OF CONCEPTUALIZATION AND MEASUREMENT

SUMMARY OF CHAPTER 2

This chapter introduces the general notions of conceptualization and measurement. Not all practitioners may use measurement in the formal sense, but they all engage in a wide variety of measurement-like activities, including, as the basic first step, defining in conceptual and operational terms what the problems are that need addressing. The question, then, is not whether practitioners will measure practice events, but how to choose to use the best measurement strategies for the given situation. The bulk of the chapter focuses on the key characteristics of measures: measurement error, reliability and validity, and the relationships among them.

KEY TERMS FOR CHAPTER 2

Conceptualization
Measurement
Measurement rules
Levels of measurement
Nominal level of measurement
Ordinal level of measurement
Interval level of measurement
Ratio level of measurement
Definition
Conceptual definition
Operational definition
"First axioms of treatment" (Hudson, 1978a)
Indicators (or observable indicators)
Measurement error
Random measurement error
Systematic measurement error
Reliability
Consistency of measurements
Independence
Sameness or under the same circumstances
Correlation
Positive correlation
Negative correlation
Test-retest reliability
Alternate-forms reliability
Internal-consistency reliability
Split-half reliability
Coefficient *alpha*
Interobserver reliability
Percentage of agreement
Kappa
Standard error of measurement (SEM)
Validity
Face validity (or "faith validity")
Content validity
Criterion validity
Concurrent validity
Predictive validity
Construct validity
Convergent validity
Discriminant validity or divergent validity
Sensitivity to change
Reactivity
"Social validity"
Clinical cutting score
Directness (or indirectness) of measures

TRIGGER QUESTIONS FOR CHAPTER 2

1. What do abstract things like concepts and theories have to do with hard practical things like client problems and goals?
2. Can everything be measured? What about abstract things like faith, goodness? Or general things like honesty and perseverance?
3. How can we ever really know whether something is true, since every "truth" requires something to validate it, and that something itself has to be tested for its truth, and so on?

THE "BASIC TEN" FOR CHAPTER 2

1. Split half and odd-even comparisons attempt to evaluate the _____*[internal consistency]*_____ of a measure.

2. If the measure you are considering adequately samples the kinds of things (e.g., potential items on a test) about which conclusions are to be drawn, the measure would have good _____*[content validity]*_____.

3. Divergent and convergent validity are ways of assessing ____*[construct validity]*____.

4. Measures that require inference by the observer in order to interpret results are called ___*[indirect]*___.

- **MULTIPLE CHOICE**

5. Test-retest reliability:
    a) Is determined by retesting a group with an alternative form
    b) Is an attempt to evaluate internal consistency
    c) Both a and b
    d) Examines the stability of a measure

Answer: [D]

6. Which would be a more *sensitive* measure:
    a) Number of arguments per day
    b) Did at least one argument occur each day

Answer: [A]

- **TRUE OR FALSE**

7. Measurement may be defined as the process of assigning labels (such as numbers) to things (such as characteristics of people) according to rules (meaning the steps in assigning these labels are explicit and consistent). *[True]*

8. Strictly speaking, measurement is not needed in performing a single-system evaluation. *[False]*

9. A conceptual definition is the same as an operational definition. *[False]*

10. If a measure is valid, then its reliability can be assumed to be adequate. *[True]*

11. If a measure is reliable, then its validity can be assumed to be adequate. *[False]*

12. A SEM of 2 indicates really low reliability. *[False]*
[This might be confusing since there really isn't an answer to this. That is, a SEM of 2 might indicate poor reliability under some circumstances but not others.]

13. The more readily a problem can be directly observed, the easier it is to validate. *[True]*

14. Criterion validity refers to multiple measurement of the same variable. *[False]*

15. Face validity, with everything else being equal, is generally a more rigorous form of assessing validity than predictive validity. *[False]*

CRITICAL THINKING THROUGH APPLICATION

1. Select one measure from sources such as *Measures for clinical practice* (Fischer & Corcoran, 2007a,b); *Handbook of psychiatric measures* (Rush et al., 2008); *Positive psychological assessment: A handbook of models and measures* (Lopez & Snyder, 2003); *A guide to assessments that work* (Hunsley & Mash, 2008); or *The seventeenth mental measurements yearbook* (SPIES, PLAKE, GEISINGER, & CARLSON, 2007). Evaluate this measure for its possible use in your practice with regard to its reliability, validity, and utility. To what extent is it a direct measure, and to what extent would you consider it potentially reactive? How feasible would it be to use that measure for single-system evaluation? How would you think clients would react to being asked these questions on a repeated basis?

2. Select a practice problem of concern to you (e.g., a depressed client, a family with a parent-child conflict, an organization that in some way doesn't meet the needs of your clients, a neighborhood association that appears to be doing nothing to maintain the viability of the area). Identify what your target of intervention will be. Devise four ways of measuring the problem, one of which is direct, one of which is indirect, one of which is obtrusive, and one of which is unobtrusive. Give a rationale regarding why you selected each. Identify the strengths and limitations of each.

ESSAY QUESTION

1. Watch a television drama with a friend, and during each commercial break, ask your friend to join you in writing down the exact last sentence of what two main actors said. At the end of the drama, compare what you each thought the actors said. Why are there differences, since you both were looking at and listening to the exact same thing?