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Section B

Instrument Validation

Measurement Validity

Definition

The extent to which a test measures what it purports to measure

Goal

 Diagnostic systems that accurately summarize signs and symptoms to indicate etiology and suggest prevention, prognosis, and treatment

Problems with Relying on Standard (Western) Measures

- Cultural validity
 - How closely concepts in a questionnaire match local concepts;
 Western/outside concepts may not apply locally
- Unknown local concepts
 - Are there important local issues/concepts unknown to us? How to include questions we don't know we should be asking?
- Translation problems
 - Who translates? Translation/back-translation methods inadequate, can result in semantic equivalence but real-world insignificance (e.g., "lighting fires")
- RISK: Evaluations don't accurately measure impact

Types of Validity

Weak Face validity Content validity Construct validity Criterion validity Strong

Validity

- Face validity
 - It appears as expected
- Content validity
 - Covers range of signs and symptoms relevant to syndrome

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- Criterion validity
 - Strength of comparison with external standard
 - Concurrent/discriminant and predictive

Reliability

- Consistency between measures of the same thing—a direct function of the amount of measurement error in a variable
 - Consistency across time (test-retest)
 - Consistency across assessors (inter-rater)
 - Internal consistency of instrument (alpha)

Reliability vs. Validity

- Consistent measurement vs. information about etiology and underlying disorder
- DSM and ICD: Operational definitions based on consensus and experience; reliable

Utility

- Defined by purpose of assessment
 - Etiologic research
 - Triage

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 - Etiologic research
 - Triage
- Categorical vs. dimensional perspectives

Validity Challenges

- Gold standard diagnostic techniques rare
 - Disease process can be well understood, but measurement is inaccurate
 - Disease process can be imperfectly understood, with controversy as to which signs and symptoms to use even if they can be measured accurately

Cross-Cultural Issues

- No gold standard
- Can be difficult to define mental illness
- Lack of cross-cultural research on consistency in disorder expression