

## Project Example: Measuring Depression

- Theory
- Measurement
- Reliability
- Validity
- Group Exercise

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## Project Proposal

- Pick a field and sub-field
  - get 1 *Review* journal article
- Pick a construct to measure
  - get 1 *Original Research* article
- Design two 1-item tests to measure your construct
- Write Proposal: 1-2 pages, 2 tests, 2 articles
- Due Thursday
- Note: late submissions may not be included in survey

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## Theory & Construct, Measures

- Theories:
  - Psychodynamic
  - Modern CBT
- Measures
  - BDI-II
  - HAM-D

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## Depression : the Construct

- Review various theories and ways to define 'depression'

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## Psychodynamic Theory of Depression

- depression = inverted hostility
- Angry at parents, but parents needed for survival
- "anger turned inward"
- "self hatred"

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## Psychodynamic Theory of Depression

- Subtypes
  - *Anaclitic* depression : (perceived) loss of relationships one depends on
    - helpless, fears of abandonment, separation anxiety
  - *Introjective* depression : failure to meet own standards (harsh superego)
    - worthlessness, guilt, feelings of failure

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## Depression-modern theory

- Psychological
- Biological

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## Depression-modern theory

- Psychological
  - depressed mood
  - anhedonia
  - poor concentration
  - ruminations (guilt, worthlessness)
  - suicidal ideation
- Cognitive Triad - negative thoughts:
  - about the world
  - about the future
  - about the self

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## Depression-modern theory

- Biological:
  - weight change: unintentional loss or gain
  - sleep disturbances
  - psychomotor agitation or retardation
  - loss of energy

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## DSM-5 : Major Depressive Episode

- 5 or more for 2 week period, must include (\*)
  - \*Depressed mood most of most days
  - \*Anhedonia
- Significant weight gain or loss (5%/month)
- Insomnia/hypersomnia
- Psychomotor retardation/agitation
- Fatigue/loss of energy
- Worthless/guilty feelings
- Trouble concentrating or indecisiveness
- Suicidal ideation, plans, attempts

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## Sample Constructs & Measures

- BDI
- HAM-D (HRSD)

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BDI-II



**Beck Depression Inventory**

V 0477

**Baseline**

CRTN: \_\_\_\_\_ CRF number: \_\_\_\_\_ Page 14 patient initials: \_\_\_\_\_

Date: \_\_\_\_\_

Name: \_\_\_\_\_ Marital Status: \_\_\_\_\_ Age: \_\_\_\_\_ Sex: \_\_\_\_\_

Occupation: \_\_\_\_\_ Education: \_\_\_\_\_

**Instructions:** This questionnaire consists of 21 groups of statements. Please read each group of statements carefully, and then pick out the **one** statement in each group that best describes the way you have been feeling during the **past two weeks, including today**. Circle the number beside the statement you have picked. If several statements in the group seem to apply equally well, circle the highest number for that group. Be sure that you do not choose more than one statement for any group, including Item 16 (Changes in Sleeping Pattern) or Item 18 (Changes in Appetite).

<p><b>1. Sadness</b></p> <p>0 I do not feel sad.</p> <p>1 I feel sad much of the time.</p> <p>2 I am sad all the time.</p> <p>3 I am so sad or unhappy that I can't stand it.</p> <p><b>2. Pessimism</b></p> <p>0 I am not discouraged about my future.</p> <p>1 I feel more discouraged about my future than I used to be.</p> <p>2 I do not expect things to work out for me.</p> <p>3 I feel my future is hopeless and will only get worse.</p>	<p><b>6. Punishment Feelings</b></p> <p>0 I don't feel I am being punished.</p> <p>1 I feel I may be punished.</p> <p>2 I expect to be punished.</p> <p>3 I feel I am being punished.</p> <p><b>7. Self-Dislike</b></p> <p>0 I feel the same about myself as ever.</p> <p>1 I have lost confidence in myself.</p> <p>2 I am disappointed in myself.</p> <p>3 I dislike myself.</p> <p><b>8. Self-Criticalness</b></p>
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## BDI-II Questions

Sadness	Self-Criticalness	Loss of Energy
Pessimism	Suicidal Thoughts	Sleep Changes
Past Failure	Crying	Irritability
Loss of Pleasure	Agitation	Appetite
Guilty Feelings	Loss of Interest	Concentration
Punishment Feelings	Indecisiveness	Fatigue
Self-Dislike	Worthlessness	Interest in Sex

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## BDI-II Psychometrics

- Correlation with HAM-D : 0.71
- Test-retest:  $r = 0.93$
- Cronbach's Alpha : 0.91

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## HAM-D aka HRSD

- Hamilton Rating Scale for Depression
- Max Hamilton - Psychiatrist 1912-1988
  - trained with Cyril Burt, UK edu psychologist / statistician - "father" of studies of heritability of IQ
- 17 item clinician rating
- 0-7 rating for each question
- Scoring:
  - 0-7 : normal
  - 20 + : moderate depression

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## HAM-D

### Hamilton Depression Rating Scale (HDRS)

PLEASE COMPLETE THE SCALE BASED ON A STRUCTURED INTERVIEW

Instructions: for each item select the one "cue" which best characterizes the patient. Be sure to record the answers in the appropriate spaces (positions 0 through 4).

#### 1 DEPRESSED MOOD (sadness, hopeless, helpless, worthless)

- 0 ☐ Absent.  
 1 ☐ These feeling states indicated only on questioning.  
 2 ☐ These feeling states spontaneously reported verbally.  
 3 ☐ Communicates feeling states non-verbally, i.e. through facial expression, posture, voice and tendency to weep.  
 4 ☐ Patient reports virtually only these feeling states in his/her spontaneous verbal and non-verbal communication.

#### 2 FEELINGS OF GUILT

- 0 ☐ Absent.  
 1 ☐ Self reproach, feels he/she has let people down.  
 2 ☐ Ideas of guilt or rumination over past errors or sinful deeds.  
 3 ☐ Present illness is a punishment. Delusions of guilt.  
 4 ☐ Hears accusatory or denunciatory voices and/or experiences threatening visual hallucinations.

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## HAM-D Questions

Depressed Mood	Retardation	Hypochondriasis
Feelings of Guilt	Agitation	Weight Loss
Suicide	Anxiety: Psychic	Insight
Insomnia: Early	Anxiety: Somatic	
Insomnia: Middle	Appetite	
Insomnia: Late	General Somatic Sx	
Work/Activities	Genital Symptoms	

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## HAM-D Psychometrics

- Often considered the "Gold Standard"
- Criticized for not being "Gold Standard"
- Bagby, Ryder et al (2004)
  - Pros:
    - test-retest:  $r = 0.81$  to  $0.98$
    - Cronbach's alpha:  $r = 0.48$  to  $0.92$
    - inter-rater:  $r = 0.65$  to  $0.98$

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## HAM-D Psychometrics

- Cons:
  - poor item characteristics
  - “Most of the items still measure multiple constructs, items that have consistently been shown to be ineffective have been retained, and the scoring system still includes differential weighting of items...”

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## Big 5 Personality Factors

Scale	Description
N	Neuroticism
E	Extraversion
O	Openness to experience
A	Agreeableness
C	Conscientiousness

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## NEO Facets

Scale	Description	Facets					
N	Neuroticism	anxiety	hostility	depression	self-consciousness	impulsiveness	vulnerability to stress
E	Extraversion	warmth	gregariousness	assertiveness	activity	excitement-seeking	positive emotion
O	Openness to experience	fantasy	aesthetics	feelings	actions	ideas	values
A	Agreeableness	trust	straightforwardness	altruism	compliance	modesty	tender-mindedness
C	Conscientiousness	competence	order	dutifulness	achievement striving	self-discipline	deliberation

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