Diagnosis and Assessment

The DSM and beyond
Diagnosis

• *The determination that the set of symptoms or problems of a patient indicate a certain disorder*

• The essential first step

• Sets up treatment, can help identify cause

• Assures the patient that he/she is not unique and that things can get better

• Also, helps others provide consistent care
Other aspects of diagnosis

• Facilitates research

• Organizes insurance coverage

• Educates patient as to typical course of treatment and likely outcomes
Assessment

• Tools which provide evidence to make diagnosis
• Many available
• Clinical interview often the first step
• What’s wrong?
• What caused this?
• What do we do to make things better?
• Often uses extend far beyond diagnosis
Reliability and Validity

• Cornerstones of both diagnosis and assessment

• Without both, we are wasting our time

• Or, worse yet, might make things worse
Reliability

• Extent to which a test, measurement, or classification system provides consistent scientific observations each time they are applied

• A rigid ruler is the peak of reliability, always gives the same length
Types of Reliability

• **Interrater** – whether two independent observers agree

• **Test-retest** – whether the same test produces similar results

• But sometimes that’s not what we want

• **Internal-consistency** – do the separate items on a test correlate with each other?
Validity

• Once we establish **reliability**, we turn to **validity**

• Useless if we lack **reliability**

• Essentially, does the technique measure what it is supposed to measure?

• Many types
Content validity

• Does the test fairly sample what we are interested in?

• Does the interview contain questions that will bring to light symptoms found in the DSM?
Criterion validity

• Does the test correlate with another measure?

• Closely aligned with **predictive validity**

• Does a high ACT score consistently predict success in college?
Construct validity – assessing theories

• Extent to which scores on an assessment instrument relate to other variables or behaviors according to a theory or hypothesis
• Does the test line up with multiple other tests, observations or measurements of the relevant condition?
• Is a self-report of anxiety accompanied by physiological signs indicating anxiety?
The mighty DSM

• First published in 1952 in attempt to organize and standardize diagnosis
• But significant flaws were present

• DSM III (1980) went much further to ensure reliability and validity
DSM III’s Innovations

1) Diagnostic criteria are much more detailed
2) Descriptions include essential and associated features, as well as lab and exam findings
3) Contains information on age of onset, course, prevalence, sex ratios, familial factors
4) Aids making differential diagnoses – how to tell apart similar disorders
DSM IV & DSM IV-TR

• Besides added emphasis on cultural factors,
• Introduced **multitaxial classification**

• Patients are assessed on five axes or scales
• Nudges clinicians look at the patient from a broad perspective

• Homosexuality dropped as a md
DSM IV’s 5 Axes

1) all recognized mental illnesses, except
2) personality disorders and mental retardation
3) relevant medical conditions
4) psychological problems (divorce, unemployment, significant loss)
5) Global Assessment of Functioning scale – rates the patient’s overall level of functioning from 1 to 100
DSM V

- Long in preparation – work began in 1999!
- Involved international conferences, work groups, drafts, feedback, field trials, revisions
- Very controversial
- Big ramifications re insurance coverage
- Sex addiction?
DSM 5 Changes

• Discards Multitaxial system – closer to international systems
• Diagnoses organized with an eye towards comorbidity and cause
• Much more attention to cultural factor
• Addition of mds limited to certain regions
More changes in DSM 5

• More attention to how mds change as we age
• New diagnoses – illness anxiety, premenstrual dysphoric, and disruptive mood dysregulation
• Some diagnoses were combined
  1) substance abuse and substance dependence into substance use
  2) hypoactive sexual desire & female sexual arousal into female sexual interest/arousal
One thing remains the same

• Mds are still categorized according to symptoms, not causes
• Despite substantial efforts

• Just not enough evidence re causes
• Still few, if any, lab tests, neurobiological or genetic markers to facilitate diagnosis
Criticisms of DSM

• Too many disorders? – are we labeling normal behaviors?
• Couldn’t we combine many diagnoses? – many are almost always (comorbid) found together
• Also many disorders seem to have the same causes and treatments
Other concerns

• What’s better categories or dimensions?
• Yes or no categories?
  give us thresholds for treatment
• Or a continuum?
  1) many have some amount of pathology
  2) the cut-offs lack empirical support
  3) \( \frac{1}{2} \) lack threshold but still get treatment
• DSM 5 retains the categorical approach
Reliability?

- Do qualified raters agree on diagnoses?
  Yes, at least much better than DSM III

- But do professionals, in their practice, strictly follow the guidelines

- Probably not
Valid?

• Does the criteria help us make predictions?
• What treatments will work?
• What was the cause?

• An issue we will discuss with respect to the specific disorders.
Assessment

• Many different types are used
• Besides aiding diagnosis,
• Aid us in measuring the success of treatment

• Often we use several
The Clinical Interview

- The first step
- Looking far beyond words
  - posture
  - eye contact
  - emotions
- Strong effort to establish rapport – trust
  - empathy, acceptance, active listening - paraphrasing
Structured or Un?

- Higher reliability with structure
- But probably few experienced therapists follow a strict script & miss comorbid conditions
- Structured Clinical Interview (SCID) – often used, enhances reliability
- Employs a “branching” strategy where the answers determine the questions
Measuring Stress

• Crucial to all types of mds
• **Stress** – *subjective experience of distress in response to perceived environmental problems*

• Two widely used measures
Bedford College Life Events and Difficulties Schedule - LEDS

- Most comprehensive measure
- Investigates 200 types of stressors
- Semi-structured interview format allows for great flexibility
- Patient & rater draw calendar
- Allows stressors to be put into context
LEDS II

• Prevents doubling up stressors – doesn’t count the stressor and its consequence
• Also provides details as to timing of stressors

• Has proven to be excellent predictor of episodes of depression, anxiety, and even schiz
Self-Report Checklists

• Much quicker to administer
• Patients are simply asked to indicate if they have experienced certain stressors in a certain period of time
• Misses differences in how people interpret these events
• Also, problems with recall can decrease reliability
Personality Tests – self report

- Personality Inventories – *Is this true of you?*
- Standardized – *given and normed by thousands, ensuring validity and reliability*

- Minnesota Multiphasic Personality Inventory (MMPI)
  - Most famous and well-established
  - Can assess 1000’s quickly
MMPI

- Established in 1942, revised in 1989
- Can detect lots of psychological problems
- Consists of 14 scales – four deal with validity, the others, content
- At first somewhat dated and culturally bound (Minnesota), later modernized and more sensitive to cultural diversity
MMP - How derived

1) clinicians prepare statements typical of various disorders
2) patients w/ disorder and controls asked to state if statements applied to them
3) if statement consistently differentiated groups, it was retained

If someone consistently responded as someone w/ disorder would, suggested diagnosis
Validity Scales

- **L scale** – people who scored high were likely lying – intentionally presenting themselves in a more positive light
- **F scale** – high score indicates attempt to appear disabled

- High scores on these scales can have huge ramifications
Does it work?

• Years of results evidence high reliability and criterion validity
• Corroborated by clinicians and spouses

• Profiles, often done by computer programs, aid in diagnosis, functional abilities, coping abilities and obstacles to treatment
Projective Tests

• *Use standard but ambiguous stimuli to cut through defenses so that unconscious motivations and fears can be revealed*

• Assumes that certain people can’t or won’t express their true feelings if directly asked

• Derived from Freud and followers
Thematic Apperception test

• Patients given a set of black & white pictures and asked to tell a story regarding each
• Occasionally telling insights can emerge

• Reliability and norms are questionable
Rorschach Inkblot Test

• Often parodied
• Patient show 10 inkblots and asked what he/she sees
• Exner’s rating scale boosts reliability
• Appears to be more useful for some md’s (schiz, borderline) than others
• But can work when nothing else helps
Intelligence Tests

• Many uses
• High reliability and validity

• Also, correlate w/ mental health
• Low scores for those in 20’s predict mds at 40
• Even mortality
• But beware of stereotype threat
Behavioral/Cognitive Assessment

Done through:

Direct Observation

look for what happens before – *anteceidents*
what happens after – *consequences &
what to do about it – *intervention*

Sometimes, artificial situations must be contrived – *the strange situation*
Self-Observation

- Self-monitoring – person notes their own actions and emotions, a/k/a **ecological momentary assessment (EMA)**
- After prompt, person notes how they are doing that instant
- Helps dodge recall problems
- Reactivity – monitoring behavior changes it
- Can work as treatment all by itself
Neurobiological Assessment

- We know that problems with our brain or nervous system can cause mds

- How do we uncover these?
Brain Imaging

• Direct views of the structure and functioning of the brain

• **CAT scans** – horizontal slices of brain, derived from how its tissue reacts to X-ray beams shows structure anomalies
Functional Magnetic Resonance Imaging (fMRI)

• Shows both structure, and
• Function – at work, rest and leisure

• Shows blood flow, which indicates what parts are active
Positron Emission Tomography (PET scans)

• Not as sharp, or detailed, as structure goes
• But, though a bit fuzzy, show vividly the brain at work, in color

• But expensive and invasive (radioactive particles)
What they give us & what’s next

• Depict seizures, atrophy, tumors, trauma and strokes
• Also, brain changes due to drugs
• How mdls affect function

• Next discovering deficits in how parts of the brain work together – **functional connectivity analysis**
Measuring Neurotransmitters (NTs)

• Cannot be done directly
• We can measure quantities and receptors after death
• While alive, we can measure metabolites – remnant after enzymes has broken down NT
• Found in blood, urine, spinal fluid
• But these findings are far from specific, could arise from many places, not just the brain
• Also correlational, causation undetermined
Measuring NTs – Cont.

• What works better is to use meds that are known to increase or decrease certain NTs
• If increasing/decreasing NT affects md, then there is too much or too little NT

• But these methods are unreliable and often too broad to help
Neuropsychological tests

- Help line up deficits in function with specific parts or structures of the brain
- **Halstead-Reitan** – help identify behavior changes linked to brain dysfunction from strokes, tumors, head injuries
- **Luria-Nebraska** – many, varying test items helps reliably uncover damage to specific parts of the brain – controls for education