Diagnosis of Mental Disorders

History and Clinical Assessment

Historical Background

"For a long time confusion reigned. Every self-respecting alienist, and certainly every professor, had his own classification."

The American Medico-Psychological Association (now the APA) issued the first nomenclature in 1918, *Statistical Manual for Use of Institutions for the Insane*, but it failed to catch on

Kendell (1975)

Rise of the Nomenclatures

APA introduced another one edition in 1928, but it too was too narrowly focused

By WWII, the military had already developed independent nomenclatures

In 1948, WHO issued the ICD-6, which contained a section on mental disorders, but was seen needing modification for use in the US

THE DSM-I

In 1952, APA published its nosology, based off of the ICD-6 and military system, called the *Diagnostic and Statistical Manual of Mental Disorders*

Gained acceptance, but many criticized its reliability, validity, and other inadequacies

The ICD-6, meanwhile, failed miserably

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ICD-8 AND DSM-II

Newly revised ICD section on mental disorders was published in 1966, but the companion glossary didn't come out until 1972

DSM was revised to be compatible with ICD-8, but still America-centered, with DSM-II published in 1968

Still much criticism over reliability and validity issues for both systems

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ICD-9 AND DSM-III

Ninth revision of ICD still failed to provide explicit, precise descriptions of the disorders

DSM-III, published in 1980, used a multiaxial diagnostic system, had specific and explicit criteria for disorders, including expanded information on each disorder, and moved towards being atheoretical

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DSM-III-R

Even with these innovations, "Criteria were not entirely clear, were inconsistent across categories, or were even contradictory."

Revisions were made in many diagnostic criteria for many disorders, resulting in even more widespread adoption

APA (1987)

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DSM-IV

DSM-IV (1994) was to be more compatible with ICD classification system

Relied more heavily on research to guide criteria and diagnoses than other editions

Included cultural and ethnic group, age, and gender variation, as well as laboratory and physical exam findings

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FUTURE OF DSM

Cross-cultural issues

Gender and developmental differences

Distinction between Axis I and Axis II

The definition of mental disorders

Thresholds for diagnosis

Use of lab findings

Impact of neuroscience

Dimensional models of psychopathology

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BUT IS IT USEFUL?

While many would say "yes," not everyone agrees

E.g., the DSM is a "psychometrically shaky, inferential nosological scheme involving criteria and definitions that change from one revision to the next."

Guidance is needed to appropriately perform diagnostic assessments

Weiner (2000)

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OPERATIONAL DEFINITIONS

Reliability refers to the consistency of measurement

Many different types
    Internal consistency
    Test-retest reliability
    Interrater reliability

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OPERATIONAL DEFINITIONS

Validity is "the degree to which evidence and theory support of the interpretations of test scores" and is what allows us to make accurate judgments about a client

Many types
    Construct
        Content, Convergent, and Structural
    Concurrent

AERA (1999)

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OPERATIONAL DEFINITIONS

Signal detection theory – a measure of validity that can describe validity across all base rates and across all cutoff scores

Norms are scores that provide a frame of reference for results

Incremental validity represents how much a test adds to already known information

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ASSESSMENT INSTRUMENTS

Many different types of instruments used to diagnose someone or assess for psychopathology, but fall into four broad categories
  Interviews
  Brief self- and clinician-rated measures
  Behavioral / psychophysiological assessments
  Global measures of personality / psychopathology

INTERVIEWS

Unstructured (US) – you decide what questions to ask and when to ask them

Semistructured (SS) – provides guidance for questions but affords flexibility

Structured (SI) – uses standardized questions, allows for no deviation

RELIABILITY OF INTERVIEWS

When diagnostic criteria are attended to, interrater reliability is high in US

Most clinicians, however, do not do this, but instead compare persons to their "typical" person with a disorder

SS and SI tend to lead to good adherence to diagnostic criteria, and therefore good IRR

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VALIDITY OF INTERVIEWS

SS and SI tend to be more valid than US, as they incorporate valid diagnostic criteria for our socially constructed disorders

Limits to SS and SI are
- Conscious over/underreport of symptoms
- Fallible and inaccurate memories
- Conflicting information from different sources

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Advantages and Disadvantages of Structured and Semi-structured Interviews

Advantages	Disadvantages
Increased reliability: Because questions are standardized, structured interviews decrease variability among interviewers, which enhances interrater reliability. Structured interviews also increase the reliability of assessment for a patient's symptoms across time, as well as the reliability between patient report and collateral information.	**May hinder rapport:** Use of structured interviews may damage rapport because they are problem-centered, not person-centered, and poorly trained interviewers may neglect to use their basic clinical skills during the assessment.
Increased validity: Structured interviews assure that diagnostic criteria are covered systematically and completely. This is important because it serves to increase the validity of diagnosis.	**Limited by the validity of the classification system itself:** Structured interviews used for diagnosis are inherently tied to diagnostic systems. Thus, they are only as valid as the systems upon which they are based. Furthermore, it is difficult to establish the validity of particular structured interviews because there is no gold standard in psychiatric diagnosis.
Utility as training tools: Structured interviews are excellent training tools for clinicians-in-training because structured interviews promote the learning of specific diagnostic questions and probes used by experienced clinical interviewers. In addition, nonclinicians can easily be trained to administer fully structured interviews, which can be cost effective in both research and clinical settings.	**Tradeoff of breadth vs. depth:** Structured interviews are limited because they cannot cover all disorders or topic areas. When choosing a structured interview, one must think carefully about the tradeoffs of breadth versus depth of assessment.

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AXIS I INTERVIEWS

Diagnostic Interview Schedule for DSM-IV
(DIS-IV; Robbins et al., 2000)

- Fully structured, designed for use by non-clinicians for epidemiological research
- Computerized version available and encouraged
- Follows DSM-IV diagnostic rules and gives many possible diagnoses

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AXIS I INTERVIEWS

Schedule for Affective Disorders and
Schizophrenia (SADS; Endicott & Spitzer, 1978)

- Semistructured, focuses on mood and psychotic disorders
- Examines both current and past psychopathology
- Designed for use by trained clinicians
- Extensive, time intensive
- Other versions available (K-SADS, SADS-L)

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AXIS I INTERVIEWS

Structured Clinical Interview for DSM-IV
Axis I Disorders (SCID-I)

- Semistructured, flexible, matched to DSM-IV
- Two versions – Research and Clinical
- Divided into modules for easy use
- Current and lifetime questions

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AXIS II INTERVIEWS

Structured Clinical Interview for DSM-IV
Axis II Disorders (SCID-II)
- Semistructured, flexible, matched to DSM-IV
- Examines 10 personality disorders plus depressive and passive-aggressive
- Has self-report screener to lessen time

AXIS II INTERVIEWS

Structured Interview for DSM-IV Personality
(SIDP-IV; Pfohl et al., 1997)
- Semistructured, covers 14 possible personality disorders
- Must be given full psych evaluation prior to administration
- Requires significant clinical judgment to administer accurately

AXIS II INTERVIEWS

International Personality Disorder
Examination (IPDE; Loranger, 1999)
- Semistructured, for advanced clinicians
- Examines both DSM-IV and ICD-10 personality disorders
- Uses a self-report screener and interview booklet

AXIS II INTERVIEWS

Personality Disorder Interview IV (PDI-IV; Widiger et al, 1995)
  - Semistructured, assesses 12 possible diagnoses
  - Modular approach to assessment

Diagnostic Interview for DSM-IV Personality Disorders (DIPD-IV; Zanarini et al., 1996)
  - Semistructured, assesses 12 diagnoses
  - Less validity and reliability data than others

BRIEF MEASURES

Typically used when delivering treatments

Allow for checking of progress in specific areas (e.g., panic, depression, anxiety)

Many have adequate reliability and validity, but self-report may over exaggerate some types of symptoms

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BEHAVIORAL / PSYCHOPHYS

Behavioral assessment includes use of self-monitoring data (e.g., diary or incidence recording) and observational techniques

Psychophysiological measures can be used in assessment of sleep problems, PTSD, and more, but need to be careful about generalizing lab results to real world

GLOBAL MEASURES

Can be projective or objective measures

Projective techniques involve use of ambiguous stimuli that a person "projects" their problems onto

Objective techniques are more structured, with specific answers given to specific questions (e.g. "Yes" or "No")

PROJECTIVE TECHNIQUES

Supposedly circumvent a person's "defenses" and so less vulnerable to faking
    Research shows that this is not the case

Difficulties in scoring lead to low reliability, as well as lack of norms for comparison

Low construct validity in studies, with no replication of those supporting the overall validity

PROJECTIVE TECHNIQUES

On Rorschach, validity has been found for detection of psychotic thought processes, dependency, and therapy outcome

On TAT, established validity for achievement motives, sexual abuse history, and BPD

For human figure drawings, only for distinguishing global psychopathology

PERSONALITY INVENTORIES

Require persons to respond to a statement and say whether it describes them or not

> These do *not* require those persons to be able to accurately assess their symptoms or traits

Answers are empirically associated with non-test correlates, so they don't have to be able to assess their symptoms for it to be accurate

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PERSONALITY INVENTORIES

Strong data for some personality inventories (e.g. certain MMPI-2 scales, NEO-PI-R), but weaker for others (e.g., MCMI-III)

Rely on norms (unlike projectives) that well represent American society

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CLINICAL JUDGMENT

Some say that, based on experience, that they can use non-valid measures in a valid way

> In other words, I have special powers due to my years of clinical experience with X measure

This is not the case at all, as the relation between clinical experience and judgmental accuracy is weak for projective measures

Clinical Judgment

Clinical experience and training do appear to improve accuracy with objective measures (e.g., MMPI, structured interviews)

Experience may also be beneficial in structuring complex clinical tasks, such as formulating a diagnosis based on interview questions
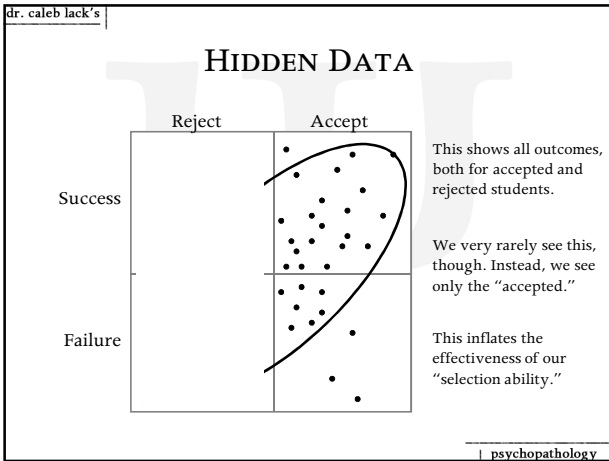
Lack of Benefit

Why do clinicians not tend to benefit from experience?

Lack of corrective feedback

Misleading feedback (Forer effect)

Confirmatory biases

Illusory correlation

Group biases / differential validity

Hidden Data

Many times, we ignore certain parts of the data when making decisions

Other times, part of the data is unavailable, which can lead us to false conclusions

HIDDEN DATA

	Reject	Accept
Success		
Failure		

This shows all outcomes, both for accepted and rejected students.

We very rarely see this, though. Instead, we see only the "accepted."

This inflates the effectiveness of our "selection ability."

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HOW TO IMPROVE DIAGNOSIS?

Again, use the LEAD standard:

Longitudinal,

Expert, and making use of

All available

Data

This includes assessment over time, consultation, and use of multiple informants

Spitzer (1983)

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HOW TO IMPROVE DIAGNOSIS?

Determine if an assessment tool is valid for its intended purpose

A. Test scores should demonstrate a consistent relation to a particular symptom, trait, or disorder
B. Results must be obtained in methodologically rigorous studies
C. Results must be replicated by independent researchers

Wood et al. (1996)

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HOW TO IMPROVE DIAGNOSIS?

Use Item Response Theory in constructing and evaluating tests

Use of validated computer programs can assist in objective, non-biased diagnoses

Rely on actuarial/statistical methods when available

MULTICULTURAL ASSESSMENT

Identify the appropriate measure for the given individual
　　Use those instruments whose validity and reliability have been established with members of a certain population

This is linked to cross-cultural measurement equivalence
　　Is this instrument valid for use with a different population than it was developed for?

MEASUREMENT EQUIVALENCE

Linguistic / translation issues
　　Use both forward and back translation

Conceptual equivalence
　　Does this construct hold same meaning in different groups?

Psychometric equivalence
　　Clinical cutoffs, normal curves

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Models of multicultural assessment

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SYMPTOM EXPRESSION & DIAGNOSIS

DSM symptom clusters largely based on
Caucasians, but symptom expression differs
from culture to culture
  - Collectivistic vs. individualistic

Somatization is a common symptom, but
differs in presentation
  - Latinos and whites – abdominal pains
  - Asians – vestibular
  - Africans – burning sensations in extremities

U.S. DHHS (2001)

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SYMPTOM EXPRESSION & DIAGNOSIS

Some evidence for more somatization in
general among minorities, but especially
strong in African-Americans

Language used impacts diagnosis rates

What is pathological for one culture may not
be for another
  - Paranoid attributional styles
  - Hallucinations

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SYMPTOM EXPRESSION & DIAGNOSIS

Stereotypes, biases, and lack of cultural awareness may also impact diagnosis

Culture of the clinicians or "Eurocentrism" of training may lead to stereotypes

DSM-IV incorporated some aspects of cultural awareness, but these are often ignored or not used by clinicians

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CULTURE SPECIFIC DISORDERS

Ataques de nervios in Latino groups
Stress reaction involving trembling, crying, screaming, and becoming aggressive

Koro in China and SE Asia
Irrational perception that one's prominent sexual body parts are withdrawing into the body and subsequently being lost

Taijin kyofusho in Japan
Report a fear of offending or harming other people

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COMMON CHALLENGES

Flawed assessment procedures

Differential symptom expression

Lack of knowledge about cultural norms

Clinician biases

Non-homogeneity of ethnic minorities

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Establishing a Culturally Competent Assessment and Diagnosis Plan

Li et al. (2007)

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Gender & Psychopathology

"Most of the mental disorders diagnosed with the DSM-IV do appear to have significant differential sex prevalence rates."

101 of 125 disorders, or 84% occur at different rates in males and females

Why?

Hartung & Widiger (1998)

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Gender Differences

Differences could be actually present, or a result of biased

1. Diagnostic constructs
2. Diagnostic thresholds
3. Application of diagnostic criteria
4. Sampling of persons with the disorder
5. Instruments of assessment
6. Diagnostic criteria

Widiger (1998)

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BIASED DIAGNOSTIC STANDARDS

Personality disorders seem almost organized along stereotypical male / female roles
Borderline, histrionic, and dependent for females
Paranoid, schizoid, and antisocial for males

Somatization disorder includes some female-only symptoms, complicating diagnosis in males

Impairment / dysfunction threshold often lower for "male" disorders, leading to differential rates

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BIASED APPLICATION OF CRITERIA

Even in objective measures of symptoms, gender-biases can occur
Not sex-biases (biological), but gender (behavioral)

Changing the gender in analogue studies contributes to changes in diagnostic rates

Gender also appears to influence clinician's decisions about diagnosis in real-world

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BIASED SAMPLING

Those who come into a clinic may not be all those people with that disorder

What brings someone into a clinic?
Willingness to acknowledge symptoms
Willingness to acknowledge need for help
Influence of others

Males and females may feel different societal pressures to seek or not seek treatment

GENDER & COMORBIDITY

Comorbidity seems to be particularly present in females

- Depression co-occurring with anxiety at twice rates in males
- More depression with substance abuse

PTSD occurs more often due to distressing life events (rape, sexual abuse)

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