A brief review

Definition of a clinical disorder
Sensitivity
Specificity
PPP
NPP

Working Definition of a Clinical Disorder:
a constellation of symptoms that significantly impairs an
individual’s ability to function, and is characterized by a particular
symptom picture with a specifiable onset, course, duration,
outcome, and response to treatment, and associated familial,
psychosocial, and biological correlates.

Sensitivity – the proportion of children with a particular disorder who exhibit
a specific symptom
Specificity – the proportion of children without a particular disorder who do not exhibit a specific symptom
PPP – the proportion of children with a specific symptom who meet diagnostic criteria for a specific disorder
NPP – the proportion of children without a specific symptom who do not meet diagnostic criteria for a specific disorder

Pathognomonic: a symptom that is highly characteristic for diagnosing a specific disorder
2-way pathognomonic – a symptom that if present, signals a high likelihood of having the disorder, and whose absence, signals the unlikelihood of the disorder being present.

Importance of Base Rate

Developmental Psychopathology

• A single cause?
• Direct vs. indirect effects:

Moderators

Hinshaw (2007) – moderators of treatment response in ADHD

Moderator

Symptom reduction

Maternal depression

Maternal depressive symptoms
No maternal depression

Symptom Severity

Pretreatment
Posttreatment

Direct effect

Mediator

Moderator

A

C

X

B

C

A

B
Historical Influences

- Early explanations of psychopathology
  - Adult focused
  - Demonology
  - Somatogenesis
- Nineteenth Century
  - Classification-Kraepelin
  - Study of youth still lagged
  - Some childhood disorders identified
    - Mental retardation received attention
  - Progress made on conceptualization of etiology

### Basic Classical Conditioning Learning

<table>
<thead>
<tr>
<th>Conditioned Stimulus</th>
<th>Outcome of Conditioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Stimulus</td>
<td>Increase Behavior</td>
</tr>
<tr>
<td>Negative Stimulus</td>
<td>Decrease Behavior</td>
</tr>
</tbody>
</table>

**Basic Classical Conditioning Learning**

- **UCS**: Food (unconditioned stimulus)
- **UCR**: Salivation (unconditioned response becomes a conditioned response)
- **Paired temporally**
- **Neutral Stimulus**: Bell (becomes a CS or conditioned stimulus after pairing)
- **Conditioning required**
- **No conditioning required**

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**Schematic of Operant Conditioning Relationships**

<table>
<thead>
<tr>
<th>Outcome of Conditioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Reinforcement</td>
</tr>
<tr>
<td>(add stimulus)</td>
</tr>
<tr>
<td>Negative Reinforcement</td>
</tr>
<tr>
<td>(remove stimulus)</td>
</tr>
<tr>
<td>Response Cost</td>
</tr>
<tr>
<td>(remove stimulus)</td>
</tr>
<tr>
<td>Punishment</td>
</tr>
<tr>
<td>(add stimulus)</td>
</tr>
</tbody>
</table>

**Operant Conditioning**

- **Positive Reinforcement** – a positively viewed stimulus follows a particular behavior and strengthens or increases the behavior.
- **Negative Reinforcement** – a negatively viewed stimulus is removed or avoided and strengthens or increases the behavior (e.g., carrying an umbrella); 2 primary types: avoidance and escape behavior.
- **Punishment** – a negatively viewed stimulus is presented or occurs following a behavior and weakens or reduces future occurrences of the behavior (e.g., spanking).
- **Response Cost** – a positive stimulus is removed and strengthens or increases a particular behavior.
- **Extinction** – behavior is no longer followed by reinforcement and decreases and eventually ceases in frequency.
• S-d’s – discriminative stimuli that indicate the likely occurrence of reinforcement.

• S-delta’s – stimuli that indicate the unlikely occurrence of reinforcement.

Psychological assessment
The process of gathering data about children and families in order to reach valid conclusions about their current functioning and future well being

Purposes
1. To screen children for possible problems
2. To arrive at a diagnosis
3. To identify & treat a specific behavior problem
4. To monitor the progress of treatment

Four Pillars of Psychological Assessment
Sattler (2001)

Multimethod assessment
1. Clinical interviews
2. Structured observations
3. Norm-referenced tests

Multi informant assessment
1. Parents
2. Teachers/daycare providers
3. Child
Clinical interviews:

Psychosocial history
- presenting problem
- family background
- child’s developmental/medical history
- child’s academic history
- child’s social history
- child’s behavioral history
- child’s psychiatric history

Mental status examination

Overt behavior
- General appearance
- Posture, eye contact, body movements, activity level
- Behavior toward clinician & caregivers

Emotions
- Mood
- Affect
- Appropriateness

Cognitions
- Thought content
- Thought process
- Intelligence
- Attention
- Memory
- Orientation to person, place, & time
- Insight
- Judgment

Methods of observation

Observations during clinical interview
Analogue tasks
Naturalistic observations (e.g., playground, classroom)
Functional analysis of behavior

**Antecedents**
Child does not understand assignment, cannot read directions, does not know what to do

**Behavior**
Child leaves seat, talks with classmates, disrupts teacher

**Consequences**
Child is positively reinforced by teacher's attention and classmate's giggles; child is negatively reinforced by avoiding the assignment

How might you intervene to reduce the child's problem behavior?

Norm-referenced testing

Involves the administration of a standardized measure of children's behavior that allows comparisons of that child to other individuals her age.

All norm-referenced tests are administered, scored, and interpreted in a standardized format, that is, each administration of the test involves the same item content, the same administration procedure, and the same method of scoring and interpretation.

Standardization permits comparison of an individual child with other children in the norm group.

**Standard score**
A raw score that has been changed to a different scale with a designated mean and standard deviation.

The WISC-IV:

Verbal Comprehension reflects knowledge gained through formal and informal educational experiences and reflects the application of verbal skills to new situations. Everyday tasks that require verbal comprehension include providing factual information, defining words, and understanding verbal analogies.

<table>
<thead>
<tr>
<th>Similarities</th>
<th>What way are a dog and a cat alike?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vocabulary</td>
<td>What is a horse? What does jumping mean?</td>
</tr>
<tr>
<td>Comprehension</td>
<td>What should you do if you get lost in a store? Why should you look both ways before crossing the street?</td>
</tr>
</tbody>
</table>

The standard normal distribution. Approximately 68% of people earn scores within one standard deviation from the mean. Approximately 95% of people earn scores within two standard deviations from the mean. Raw scores can be transformed into standard scores to make them easier to understand.
The WISC-IV:

Perceptual Reasoning reflects the ability to organize and interpret visually presented material and to engage in visual-spatial problem solving. Everyday tasks that require perceptual reasoning include solving puzzles and mazes, manipulating geometric shapes, and understanding patterns.

Working Memory reflects the ability to attend to information, retain and manipulate information in memory, and apply information when necessary. Everyday tasks that require working memory include remembering someone’s telephone number and solving arithmetic problems in one’s head.

What is Working Memory?

– Working memory is a limited capacity system that enables individuals to store briefly and process information (Baddeley, 2007).

Domain General

Alan Baddeley's (2007) WM Model

The WISC-IV:

Processing Speed reflects the capacity to visually scan and process nonverbal information quickly and accurately. Tasks that require processing speed include scanning a supermarket aisle for a specific product, or activities that require matching and sorting.

Academic achievement domains:

<table>
<thead>
<tr>
<th>Domain</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>recognizing letters, reading words, reading fluency, sounding out phonemes, understanding the meaning of sentences and paragraphs</td>
</tr>
<tr>
<td>Reading Comprehension</td>
<td></td>
</tr>
<tr>
<td>Mathematics</td>
<td>math skills ranging from arithmetic to geometry, math fluency formulating and solving story problems</td>
</tr>
<tr>
<td>Math Reasoning</td>
<td></td>
</tr>
<tr>
<td>Written Language</td>
<td>spelling, editing grammar and punctuation writing sentences and paragraphs</td>
</tr>
<tr>
<td>Basic Writing Skills</td>
<td></td>
</tr>
<tr>
<td>Written Expression</td>
<td></td>
</tr>
<tr>
<td>Oral Language</td>
<td>understanding directions, answering questions about stories recalling verbal stories, telling the names of objects</td>
</tr>
<tr>
<td>Listening Comprehension</td>
<td></td>
</tr>
<tr>
<td>Oral Expression</td>
<td></td>
</tr>
</tbody>
</table>

Adaptive functioning in young children:

<table>
<thead>
<tr>
<th>Domain</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conceptual Skills</td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td>Follows simple commands, such as &quot;Come here.&quot;</td>
</tr>
<tr>
<td></td>
<td>Follows simple sentences.</td>
</tr>
<tr>
<td>Functional Academics</td>
<td>Knows colors.</td>
</tr>
<tr>
<td>Self-Directed</td>
<td>Creates lists 1 to 20.</td>
</tr>
<tr>
<td>Social Skills</td>
<td></td>
</tr>
<tr>
<td>Leisure</td>
<td>Asks to be read a favorite book.</td>
</tr>
<tr>
<td></td>
<td>Wears/monitors games and activities.</td>
</tr>
<tr>
<td></td>
<td>Shares toys with others.</td>
</tr>
<tr>
<td></td>
<td>Offers to help others.</td>
</tr>
<tr>
<td>Social</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Practical Skills</td>
<td></td>
</tr>
<tr>
<td>Community Use</td>
<td>Looks both ways before crossing the street.</td>
</tr>
<tr>
<td></td>
<td>Finds remaining in a public place.</td>
</tr>
<tr>
<td>Home Living</td>
<td>Gets along smoothly with family.</td>
</tr>
<tr>
<td>Health and Safety</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Care</td>
<td></td>
</tr>
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</table>
Behavior rating scales

Externalizing Problems reflect children’s disruptive behavior. Externalizing symptoms include hyperactivity, aggression, and conduct problems.

Internalizing Problems reflect disturbance in children’s emotional functioning. Internalizing symptoms include anxiety, depression, and somatic complaints.

School Problems reflect academic difficulties, including low motivation, inattention, and learning problems. This scale is only completed by teachers.

Adaptive Skills reflect behavioral and social-emotional competence, appropriate social and daily-living skills, and general prosocial behavior.

Rorschach Inkblot Test

Based on the projective hypothesis, the notion that people who take the test “project” or impose structure and organization on the inkblots in order to perceive them in meaningful ways

Individuals with social, emotional, or cognitive disturbance will show difficulty in the perceptual-cognitive process required to make sense of the inkblots.

John Exner (2003) developed a standardized method for administering, scoring, and interpreting the Rorschach known as the Comprehensive System.

Evaluating psychological tests

Reliability

The consistency of psychological test scores

• Test-retest reliability
• Internal consistency

Validity

The degree to which its users can have confidence in the inferences made from the test’s results for a specific purpose

• Content validity
• Construct validity (convergent & discriminant validity)
• Criterion-related validity (concurrent & predictive validity)

Diagnosis

Advantages

Parsimony
Professional communication
Prediction
Treatment planning
To obtain social services
To help parents
To facilitate scientific discovery

Limitations

Loss of detailed information
Focuses exclusively on individuals
Normality is sometimes arbitrary
High comorbidity
Subjective & value-laden criteria
Stigma
<table>
<thead>
<tr>
<th>Axis</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Clinical Disorders &amp; Other Conditions that May Be a Focus of Clinical Attention</td>
</tr>
<tr>
<td>II</td>
<td>Personality Disorders &amp; Mental Retardation</td>
</tr>
<tr>
<td>III</td>
<td>General Medical Conditions</td>
</tr>
<tr>
<td>IV</td>
<td>Psychosocial and Environmental Problems</td>
</tr>
<tr>
<td>V</td>
<td>Global Assessment of Functioning</td>
</tr>
</tbody>
</table>