Agenda

- Overview of BDI-2
- Demonstrations and Structured Group Practice
- Common Administration Errors
- Scoring the Protocol
The Battelle Developmental Inventory, Second Edition

- Norm-referenced (2,500 children: birth-7 years 11 months)

- Administration Time
  - Full battery (60-90 Min)
  - Screener (10-30 Min)

- User qualifications
  - Next slide

English and Spanish (Normed in English only)
Calculating Chronological Age

- How do you calculate chronological age?

- Time to Practice

<table>
<thead>
<tr>
<th>Date of Testing</th>
<th>Date of Birth</th>
<th>Chronological Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014 2 7</td>
<td>2012 1 24</td>
<td></td>
</tr>
<tr>
<td>Date of Testing</td>
<td>Date of Birth</td>
<td>Chronological Age</td>
</tr>
<tr>
<td>2011 6 1</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Date of Testing</td>
<td>Date of Birth</td>
<td>Chronological Age</td>
</tr>
<tr>
<td>2011 9 27</td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

1. Child is _______ Months old

2. Child is _______ Months old

3. Child is _______ Months old

4. Child is _______ Months old
Calculating Chronological Age

Step 1. Look at Day Column
Step 2. Look at Month Column
Step 3. Look at Year Column
Step 4. Calculate Age in Months

<table>
<thead>
<tr>
<th>Year</th>
<th>Month</th>
<th>Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of Testing</td>
<td>2014</td>
<td>2</td>
</tr>
<tr>
<td>Date of Birth</td>
<td>2012</td>
<td>1</td>
</tr>
<tr>
<td>Child’s Chronological Age</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Ways to Calculate Chronological Age

- By hand (as we practiced)
  - Have your team member on their own calculate the age as well to compare - must get it right!

- Online Calculators
- Smartphone apps
- Use multiple methods!
Features of BDI-II

- Please open your photocopy of the BDI-II protocol, look at the questions

- Item types
  - Structured
  - Observation
  - Interview

- Scoring Criteria

- Team administration

Reflects early childhood curricula
Basal and Ceiling

- **What is a Basal?**
  - When a child earns full credit scores (2 points each) on 3 consecutive, lowest-numbered items administered
  - Very Important: *When calculating final score, full credit is given for all previous items*

- **What is a Ceiling?**
  - Scores of zero on 3 consecutive highest-numbered items administered
  - Stop testing on that particular subtest, nothing after that gets added into total score
Domains and Sub-Domains

• Strands of development within each domain

  ▪ **Adaptive**
    ▪ Self-Care
    ▪ Personal Responsibility

  ▪ **Personal-Social**
    ▪ Adult Interaction
    ▪ Peer Interaction
    ▪ Self-Concept & Social Role

  ▪ **Communication**
    ▪ Receptive
    ▪ Expressive

  ▪ **Motor**
    ▪ Gross Motor
    ▪ Fine Motor
    ▪ Perceptual Motor

  ▪ **Cognitive**
    ▪ Attention & Memory
    ▪ Reasoning & Academic Skills
    ▪ Perception & Concepts
Test Administration

- Begin with any domain
- Use age or estimated ability level to determine start point
- Establish basal – reverse one item at a time as needed to reach basal
- Within domains, typically administer items in order that they appear
- Continue until you reach the ceiling – stop even if you think the child can complete items beyond this
Determining starting point

- If the child is 15 months, which # Self-Care item would you start with?
- If the child is 33 months, which # Perception and Concepts item would you start with?
- Remember that these are suggested starting points, NOT the estimated ability range for the age listed
Methods for Administering Each Item

- **Structured**: Uses materials or stimuli to elicit a response in a controlled, one-to-one setting

- **Observed**: Uses normal activities in natural settings to observe behavior over time

**Interview**: Provides scripted, open-ended questions for obtaining information about child from caregiver
General Guidelines for Scoring Items

- 2 = Milestone Achieved
- 1 = Milestone Emerging
- 0 = Milestone not yet evident

There are more specific scoring criteria for each item—will specify in test book.
Frequency Scoring

- When items are scored as a frequency of ‘typically’, ‘sometimes’, or ‘rarely or never’, the criteria is as follows:

<table>
<thead>
<tr>
<th>Score</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Typically (90% or more of the time)</td>
</tr>
<tr>
<td>1</td>
<td>Sometimes</td>
</tr>
<tr>
<td>0</td>
<td>Rarely or never (10% or less of the time)</td>
</tr>
</tbody>
</table>

- Thus, sometimes is implied as the range of 11-89% of the time (NOT 50%)
Common Elements for Every Test Item from the Test Book

- Starting Point (top right corner of pp)
- Subtest # (top left corner of pp)
- Domain, Subdomain, Behavior, & Materials
- Standard Procedures
  - Procedure
  - Scoring
BDI Small Group Overview
DEMONSTRATION AND PRACTICE: Common Administration and Scoring Errors
Adaptive Domain

- Assesses ability to use information and skills in daily life activities
  - Self-Care
  - Personal Responsibility (age 2+)
Adaptive Domain – Self Care

- Self Care Item # 12
  - What types of responses or behaviors would count as “asking” for food or liquid?

- Self Care Items #13 & 16
  - Feeding with an utensil

- Self Care Item # 14:
  - Best to see the child take off his or her shoes in the session
  - Be sure to determine if the child can simply kick off their shoes or actually remove them
Adaptive: Self Care #26
Adaptive: Self Care #26
Adaptive Domain - Personal Responsibility

- **PR #2**
  - Understanding hot is dangerous
    - Can be administered as a structured item (using cards)
    - Administering via interview format

- **PR #3**
  - ___ or fewer reminders needed for child to put away toys

- **PR #5**
  - Child can indicate an injury or illness through _____ or _____
Personal-Social Domain

- Assesses meaningful social interactions, self-concept, and sense of social role
  - Adult Interaction
  - Peer Interaction (age 2+)
  - Self-Concept & Social Role
Personal-Social Domain

- Administration Tip:
  - The item explanation on the protocol itself can be misleading about the behavior sought.
  - Review in detail the item explanations in the book before administering
- Adult Interaction 20:
  - The child must initiate (or with prompting) social contact with familiar adults.
  - Cannot be only to have his or her needs met.
Personal Social Domain

Adult Interaction

- **AI #13** – Showing affection
  - **Note:** Releasing physical possessions the child is attached to without consistent temper tantrums should be considered in the scoring of this item.

- **AI #23** – Asking for help
  - What are examples and non-examples of how the child can ask adults for help?

- **AI #24 & SR #10** – Following directions
  - How are these two items the same or different?
Self-Concept & Social Role

- SR #13 – Shows pride in accomplishments
  - Is clapping along with others after doing something a behavior that is indicated in the scoring for this item?

- SR #16 – States first name
  - If the child doesn’t respond when you ask their name, say ____________?
  - Scoring for this item
Communication Domain

- Assesses how effectively a child receives and expresses information and ideas through verbal and nonverbal means
  - Receptive
  - Expressive
## A Few Common Administration Errors on the Communication Domain

<table>
<thead>
<tr>
<th>Receptive Communication</th>
<th>Expressive Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RC #12:</strong> Name each item before you place them around the room and ask where they are.</td>
<td><strong>EC #3 &amp; EC#18:</strong> What are the differences between these items?</td>
</tr>
<tr>
<td><strong>RC #17:</strong> Name the dolls first; one set of dolls at a time</td>
<td><strong>EC#19:</strong> What is criteria for 2 points?</td>
</tr>
<tr>
<td><strong>RC #20:</strong> The way ‘softly’ and ‘loudly’ are stated</td>
<td><strong>EC#20:</strong> Child talks about other people in a way that describes what they do or how they view them vs. simple actions</td>
</tr>
</tbody>
</table>
Motor Domain

- Assesses ability to control and use large and small muscles of the body
  - Gross Motor
  - Fine Motor
  - Perceptual Motor
Gross Motor Scoring

- Scoring criteria is very item-specific
- Use the test book to determine the scoring of each item (0,1, or 2)
- Example: Gross Motor Item #32
  - Note: Many children 33 months old will not be able to jump with both feet together to earn 2 points, but will jump up and down without keeping feet together earning 1 point
Example: Gross Motor Item 29

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Up and down 3 steps</td>
</tr>
<tr>
<td>1</td>
<td>Either up or down 3 steps (one way only)</td>
</tr>
<tr>
<td>0</td>
<td>Either up or down 2 or fewer steps</td>
</tr>
</tbody>
</table>
A Few Common Administration Errors on the Motor Domain

- **GM #35**
  - Carefully look at the diagram of the bilateral body positions.

- **FM #14**
  - Child can use whole hand in open position to obtain 1 point.

- **FM #17**
  - String ___ beads during your demonstration.

- **PM #5**
  - Tipping the bottle but not able to remove the small item is what score?
Cognitive Domain

- Assesses mental and intellectual abilities, including attending to, perceiving, and processing information as well as memory
  - Attention & Memory
  - Reasoning & Academic Skills (age 2+)
  - Perception & Concepts
A Few Common Administration Errors on the Cognitive Domain

- AM #12 and #15
  - Differences in whether TV viewing can be counted

- AM #17
  - Silently count to 10 as you are hiding the toy, not aloud

- AM #20
  - How should all 6 picture cards be displayed?
A Few Common Administration Errors on the Cognitive Domain Reasoning and Academic Skills

RA#6
- Number of cups used and number of demonstrations

RA#8
- *One* and *one more* assessed only via __________

RA#11
- Remember not to give verbal or non-verbal indication once the child has given you 3 cubes
A Few Common Administration Errors on the Cognitive Domain

- **PC #6**
  - What if the child quickly imitates one of your faces and walks away, but does not attend for 30 seconds?

- **PC #8**
  - Present only one form at a time
  - Don’t say shape names

- **PC #10**
  - Be sure to leave your demonstration piles (black and white chips) on the table
PRACTICE: SUMMING AND CONVERTING SCORES
TALLYING SCORES FOR EACH SUBDOMAIN

- Sum all the 2’s and record in the designated box
- Sum all the 1’s and record in the designated box
- Don’t forget to include the items before the basal that you did not administer
- They each count for 2 points!
HAND SCORING
SCORING

- 1<sup>st</sup> – Calculate raw scores
  - The total number of points earned on each subtest

- 2<sup>nd</sup> – Transfer raw scores to front page of test protocol
Converting Raw Scores

- Use exact chronological age and raw scores to derive:
  - Scaled scores & Percentile ranks
    - (Appendix B, pp 157 – 205)
  - Developmental Quotient(s)
    - (Appendix C, pp 207 – 222)
### Summary Profile

#### Adaptive (ADP)
- **Self-Care (SC)**
  - Personal Responsibility (PR)
- **Total**

#### Personal-Social (P-S)
- **Adult Interaction (AI)**
- **Peer Interaction (PI)**
- **Self-Concept and Social Role (SR)**
- **Total**

#### Communication (COM)
- **Receptive Communication (RC)**
- **Expressive Communication (EC)**
- **Total**

#### Motor (MOT)
- **Gross Motor (GM)**
- **Fine Motor (FM)**
- **Perceptual Motor (PM)**
- **Total**

#### Cognitive (COG)
- **Attention and Memory (AM)**
- **Reasoning and Academic Skills (RA)**
- **Perception and Concepts (PC)**
- **Total**

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### Developmental Quotient Composite Profile

<table>
<thead>
<tr>
<th>ADP</th>
<th>P-S</th>
<th>COM</th>
<th>MOT</th>
<th>COG</th>
<th>BDQ-2 Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>150</td>
<td>160</td>
<td>145</td>
<td>150</td>
<td>150</td>
<td>150</td>
</tr>
</tbody>
</table>

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### Conversion Table for Sum of Scaled Scores (Appendix C)

<table>
<thead>
<tr>
<th>Sum of Scaled Scores</th>
<th>Adaptive</th>
<th>Personal-Social</th>
<th>Communication</th>
<th>Motor</th>
<th>Cognitive</th>
<th>BDQ-2 Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>to</td>
<td>to</td>
<td>to</td>
<td>to</td>
<td>to</td>
<td>to</td>
</tr>
</tbody>
</table>

### Date of Testing
- **Year**: 2014
- **Month**: 01
- **Day**: 13

### Date of Birth
- **Year**: 2011
- **Month**: 05
- **Day**: 03

### Chronological Age
- **Years**: 2
- **Months**: 9
- **Days**: 15

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### Description
- *Let's Walk Through Scoring Together: Child A*
- Record raw scores in the corresponding column
Go to Appendix B & Find Scaled Scores & Percentile Ranks. Record in Summary Profile.
Sum the subdomain scaled scores in the right column, sum BDI-2 total and transfer to Conversion Table.
Use Appendix C to fill in the Developmental Quotients in the Conversion Table.
Plot Scaled Scores and Developmental Quotients on Corresponding Charts
Plotting Scores

- Transfer sub-domain scaled scores into Sub-domain Profile and plot

- Transfer domain Developmental Quotient scores to Developmental Quotient Composite Profile and plot
Welcome to BDI-2, LOGIN ESBAE-062 - DO NOT USE FOR EXAMINER FIELD!

The BDI-2 Data Manager provides menus to help you navigate to different locations in the program where you can perform the various activities necessary to define the structure of your organization, create and manage staff and child records, and produce reports.

To make changes to your hierarchy and manage your organization, click the Hierarchy Organization menu and choose from the available commands.

To create and manage staff records, use the commands on the Staff Administration menu.

To work with child records, use the commands on the Child Administration menu.

To produce child reports, choose from the commands on the Reports menu.

To create imports or exports, or to download group reports, use the commands on the Import/Export menu.

Release Notes were updated on 10/21/2011 3:09:14 PM  Release Notes
Age Equivalent Scores

- In Early Steps, we don’t use them. Why?
- The use of age scores has significant drawbacks
- Norming of age scores results in differing scores depending on assessment used
  - Simply the median raw score for a particular age level
- Use of standard scores is preferable, as they are far more consistent across assessments
  - Standard scores are a more accurate representation of an examinee’s ability because they are based not only on the mean at a given age level but also on the distribution of scores.
Small Group Practice
Questions?