Assessment of Children who are Severely Orthopedically Impaired

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Psychologists Responsibilities

- Possess knowledge of physiological and psychological aspects of the student’s impairment.
- Use assessment instruments appropriate for the students with orthopedic impairments.
- Assess the non-physical correlates of the OI (i.e., intellectual, psychosocial, adaptive behavior, and social/emotional skills).
- Provide group, individual, and family counseling.

Examiner Requirements

- Prior experience working with children with severe OI.
  - Tests given by persons without experience working with orthopedically impaired students are more likely to be invalid.
- Awareness of the student’s medical management issues (e.g., medications, recent surgery, etc.) that may impact testing.
- An attitude of openness toward individuals with OI.

Examiner Requirements

- Avoid the halo effect
  - Avoid providing cues
    - When employing ambiguous examinee response methods (e.g., eye gaze), use techniques that allow the examiner to be blind to the correct response.
- Be especially patient and allow for sufficient response time.
  - Budget more time for these assessments as when done well they are much more involved evaluations.
- Be sensitive to examinee fatigue.

Pre-Assessment Considerations

- Positioning to facilitate optimal performance.
  - Consult with a physical therapist
- Select an environment that minimizes distractions as this population has elevated incidence of attention and concentration difficulties.
- Determine etiology
  - May suggest the presence of other handicaps (e.g., birth trauma is also associated with learning disabilities).

Pre-Assessment Considerations

- Determine student’s preferred mode of communication (e.g., sign language, communication boards, ESL, etc.) and the need for an interpreter.
  - Ensure interpreters are trained!!!
    - Have accurate understanding of questions/directions.
- Don’t give away test answers.
- Make sure vision and hearing has been assessed and if required glasses are worn/hearing aids are used!
- Collaboration with OT and PT specialists typically required.
Communication Issues

- Assessment of receptive vocabulary is often a key to understanding the child with severe OI.
  - This area is often far less affected than expressive language.
  - The PPVT-3rd ed. is an effective tool when combined with eye gaze (and/or other alternative) communication procedures.

Perceptual-Motor Issues

- These skills are typically impaired among the OI population.
- Consultation with an OT is important in assessing these skills.
- The primary question is whether the observed difficulties (e.g., poor handwriting) are the result of output (motor) or input (perceptual) processes.
  - Results of the MVPT-R and VMI can help to make this distinction.

Adaptive Behavior Issues

- It is important to determine the degree of independent functioning in self care and daily living.
- Consultation with an OT is important in assessing these skills.
- The primary question is the degree to which the student’s motor limitations affect his or her ability to take care of self and get along with others.

School Record Review

- Vision and hearing screening results.
- School attendance history
- Prior assessment data
- Academic performance
- Family information

Assessment Issues: Cerebral Palsy

- Difficulties controlling movement and posture may make assessment challenging.
  - May cause difficulty responding to timed items.
  - Oral motor dysfunction may also affect speech production.
  - You may work with a student who has above average IQ, but obtains deficient scores on all measures of intelligence.
- May cause difficulty manipulating test items.
- 50% also have mental retardation.
- High incidence of visual perceptual and visual motor difficulties.

Assessment Issues: Neural Tube Defects (e.g., spina bifida)

- Failure in development of the structures of the spinal column early in gestation.
  - The higher the lesion, the more severe the student’s deficits.
  - Low normal range of intelligence is typical.
- Hydrocephalus affects a majority of these students.
  - Accumulation of cerebrospinal fluid in the ventricles.
  - Increases risk for lower IQ and perceptual-motor dysfunction.
  - Increases risk for behavior, attention, concentration, and perseverance difficulties.
Assessment Issues:
Muscular Dystrophy
(most common is Duchenne)

- Progressive muscle weakness.
  - Affects the ability to manipulate objects.
  - Eventually affects the respiratory system.
  - Terminal stage in adolescence or young adulthood.
- Specific learning disabilities.
  - Especially reading disabilities.

Assessment Issues:
Connective Tissue Disease
(most common is JRA)

- Symptoms are erratic and unpredictable
  - Affects the ability to manipulate objects.
  - May need to postpone testing if the student is having a severe flare-up.
- Not associated with specific learning disabilities or cognitive delays.
- May affect school attendance and “availability” for learning.

Observations and Interviews

- Will help in determining
  - needed test accommodations.
  - typical behavior/performance.
  - learning strengths and weaknesses.
  - goals and expectations.
  - validity of test scores.

Assessment Tools

- Modify stimulus demands and response requirements.
  - Eliminate time requirements
  - Use multiple choice formats
  - Choice-pointing responses
  - Pantomiming responses
  - Stabilizing the student’s hand
  - Enlarging stimulus items
- Unless tests are known to be valid for this population, always consider the possibility that scores may be underestimates.

Intelligence Testing

- Wechsler Scales
- Kaufman Assessment Battery for Children
- Test of Nonverbal Intelligence
- Pictorial Test of Intelligence
- Columbia Mental Maturity Scale

Language Testing

- Consult with LSH specialist
- Peabody Picture Vocabulary Test
- Expressive One Word Picture Vocabulary Test
Social & Emotional
- Developmental crises may be more intense.
  - School entry is often a significant developmental crisis as the child recognizes differences and limitations.
  - Adolescence may also be difficult.
- Resiliency and vulnerability factors will influence adaptation to both congenital and acquired OI.
- Self concept is fundamental to adjustment.
  - Piers-Harris
  - Self-Esteem Inventory
  - Tennessee Self Concept Scale

Social & Emotional
- Drawing tests may not be helpful.
- Student interviews are useful.
- Standard measures of personality (e.g., PIC) and behavior (e.g., CBCL) can be used.
- Issues to explore include:
  - Social desirability
  - Lack of motivation
  - Fears
  - Social relations
  - Issues of independence

Resources
- Available from the instructor
- National Information Center for Children and Youth with Disabilities.
  - Go to www.nichcy.org

Next Week
- Final Examination