



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., mediations, recent surgery, etc.) that may impact testing.
 - **School nurse consultations are important here!**
- 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 effected than expressive language.
 - The PPVT-4th ed. is an effective tool when combined with eye gaze (and/or other alternative) communication procedures.
 - <http://www.brainshark.com/brainshark/vu/view.asp?pi=103976380>





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-3 and VMI can help to make this distinction.




Perceptual-Motor Issues




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 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

- Physically Handicapped Children: A Medical Atlas for Teachers (2nd ed.). (Bleck & Nagel, 1982).
 - Available from the instructor
- National Information Center for Children and Youth with Disabilities.
 - Go to www.nichcy.org



Next Week

- Preschool Assessment
- Darren Husted, instructor
- Read Brassard & Boehm Ch. 1, 4
- Review CA Early Start information at: www.dds.ca.gov/EarlyStart/WhatsES.cfm
- Read section I of CDE document at: www.cde.ca.gov/sp/se/fp/documents/ecadmin.pdf

