Ontario Blind-Low Vision Early Intervention Program

Functional Vision Assessment Report

Child:

Date of Birth:

Date of Report:

Parents:

Early Childhood Vision Consultant:

Background Information

Service

Medical

Cortical Visual Impairment (CVI)

Paediatric Cortical Visual Impairment is a congenital or acquired brain-based visual impairment with onset in childhood and associated with unique visual and behavioural characteristics. Because CVI is neurologically based and the location and extent of injury varies, children require an assessment to determine the most appropriate intervention.

Assessment Method

The Ontario Blind – Low Vision Early Intervention Program uses the CVI Range (Roman, 2018), an assessment protocol to direct intervention for children with CVI. It includes the components of parent interview, observation and direct assessment of the 10 unique visual characteristics of CVI. The Range is a scale with 0 representing little or no functional vision and 10 representing near normal use of vision. This scale is used to plot the child's visual behaviours into one of three phases along the continuum.

This report provides a description of how *(child's name)* is currently functioning within each of the 10 CVI characteristics identified in the CVI Range (Roman, 2018).According to the CVI Range, *(child's name)* has a range score of (*add score 1-10*) and is therefore considered in Phase (*I, II OR III*). Phase (*I, II OR III*) indicates that *(child's name)* is *(use wording from Phase Chart, i.e., 'building visual behaviours').* The phase is not fixed, and with time and appropriate intervention, it is expected there will be further progress.

Information was gathered through interviews, observation and direct assessment of *(child's name)* in (*add his or her location, i.e. home, child care, preschool, OEYC – include all that).*

Visual Behavioural Characteristics of Children with CVI

- Colour Preference
- Need for Movement
- Visual Latency
- Visual Field Preferences
- Difficulty with Visual Complexity
  - ✔ Object patterns
  - ✔ Visual array
  - ✔ Sensory environments
  - ✔ Human faces
- Difficulty with Visual Novelty
- Need for Light
- Difficulty with Distance Viewing
- Absence of Visually Guided Reach
- Atypical Visual Reflexes

CVI Assessment Results

Phase I (Ranges 0 - 3):
Building visual behaviours

Phase II (Ranges 4 - 7):
Integrating vision with function

Phase III (Ranges 7+ - 10):
Resolution of remaining CVI characteristics

(Roman, 2018)

Colour Preference

Individuals with CVI often have a strong attraction to visual targets of a particular colour. When a colour preference is identified, incorporating it into the child's program, activities and routines helps with visual responses and attention.

DELETE this sentence and Insert your findings and recommendations for this specific child.

Need for Movement

Children with CVI generally show an increased awareness and response to objects that have movement properties enhancing their ability to function visually. A visual response may be activated by the physical movement of an object or by presenting objects that have shiny surfaces.

DELETE this sentence and Insert your findings and recommendations for this specific child.

Visual Latency

Visual latency refers to the delay in response from the time a target is presented to the time a target is visually regarded. Children with CVI often demonstrate a delay in their response to visual stimuli. The latency period may vary depending on the child's state and environmental factors.

DELETE this sentence and Insert your findings and recommendations for this specific child.

Visual Field Preferences

Many children with CVI have visual field preferences and limitations making it important to determine the best location to present materials. Presenting targets in the children's preferred field will increase their ability to visually regard and attend.

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Difficulty with Visual Complexity

Visual complexity includes four dimensions: (A.) complexity of the pattern on the surface of an object; (B.) complexity of the visual array (the object within its surrounding environment); (C.) complexity of the sensory environment, and (D.) complexity of the human face.

A. Complexity of Patterns

Simple patterns or single coloured objects appear to elicit the most consistent visual response from children with CVI. Objects that are too 'busy' will often overwhelm the visual system of a child with CVI.

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B. Complexity of Visual Array

For many children with CVI, when an object is placed against a visually complex background, or when objects are placed too close together, the object cannot be distinguished.

DELETE this sentence and Insert your findings and recommendations for this specific child.

C. Complexity of Sensory Environment

For some children with CVI, the process of visual attention can occur only when there are no distractions from other sensory stimuli. It is often difficult to maintain visual attention on a target when touch and sound compete for attention.

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D. Complexity of the Human Face

Many children with CVI demonstrate unusual regard of faces. For some, eye-to-eye contact is absent although they may be able to turn in the direction of a face. As the child progresses, eye contact may occur but is often fleeting. Difficulty interpreting faces and recognition of a person can be present throughout the 3 Phases.

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Difficulty with Visual Novelty

Unlike the typical visual response of alerting to novel or unusual visual stimuli, children with CVI tend to ignore these objects. They prefer to attend to objects that they have viewed over and

over again. New objects are best introduced using considerations for colour preference and visual complexity.

DELETE this sentence and Insert your findings and recommendations for this specific child.

Need for Light

The CVI characteristic of light is one in which children with CVI show an unusual response or requirement regarding light input. The light itself can be either natural light (i.e. light through windows) or artificial (i.e. lamps and overhead lighting). Controlling the light source and the child's position is often required for the child to visually attend to a desired target.

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Difficulty with Distance Viewing

Children with CVI tend to regard objects in the near space only. In general, this is linked to the difficulty with complexity. Objects that are positioned farther away become part of a more complex visual array.

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Absence of Visually Guided Reach

For many children with CVI, looking and reaching occur as two separate events. Children will often look at a visual target, turn their eyes and/or head away and then reach towards the object.

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Atypical Visual Reflexes

Many children with CVI have an atypical response to two innate reflexes that serve to protect the eyes. The visual blink reflex occurs when the bridge of the nose is touched and a blink occurs simultaneously. The visual threat response occurs when a hand is moved quickly towards the face at midline causing a blink response. For children with CVI, these reflexes are either absent or occur with some latency. Changes in these reflex responses are monitored and recorded but there are no intervention strategies to increase responses.

DELETE this sentence and Insert your findings and recommendations for this specific child.

Summary

DELETE this sentence and Insert your findings and recommendations for this specific child.

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Name
ECVC
Agency

References

Roman – Lantzy, C. (2018). *Cortical visual impairment: An approach to assessment and intervention.* (2nd Ed.). New York, NY: AFB Press.