



Are Pediatric assessments assessable for children with vision impairments?

A survey of pediatric Occupational Therapist
 Lauryn F. Bower, BS, OTS; Beth Barstow, PhD, OTR/L, SCLV, FAOTA
 Department of Occupational Therapy | University of Alabama at Birmingham
 Nicole Holley, Developmental Specialist, TVIB | Alabama Institute for Deaf and Blind

Introduction

Background
 • Over 1.6 million U.S. individuals under 40 experience vision loss, including 6.8% of children under 18 (CDC, 2022). Vision loss impacts development and daily activities, yet many standardized pediatric assessments overlook the unique needs of children with vision impairments (Bielinski, 2022). Research is needed to adapt these tools for effective therapy (Drue, 2022).

Purpose
 • To examine occupational therapists' perspectives on pediatric assessments for children with VI and explore adaptations to improve their suitability.

Methods

• This study used interviews with pediatric OTs to identify challenges in working with children with visual impairments, informing a nationwide survey. Data was analyzed for trends. Participants were experienced, English-literate, and voluntary.

Qualitative Results

Theme	Early Intervention OT	School System OT	Outpatient OT
Challenges with Standardized Assessments	"The assessments don't capture the full range of abilities in children with vision impairments."	"Few tools measure development accurately for children with visual impairments."	"Standardized tests don't give a true picture of the child's abilities."
Significant Adaptations in Therapy	"We adjust materials—adding texture and contrast for engagement."	"I use sensory activities and minimize visual cues to engage children."	"Tactile and auditory cues help children engage meaningfully."
Focus on Functional Outcomes	"We focus on helping children gain independence in daily activities."	"Functional skills, like navigating the classroom, are prioritized."	"Independence and participation in routines are my main goals."
Critical Role of Parent Education	"Parents must support vision and developmental needs at home."	"I educate parents on modifying environments and activities."	"Teaching parents strategies to use at home is crucial for progress."

Quantitative Results

- 80% of therapists found standardized tools inadequate for children with vision impairments, often modifying them despite concerns about skewed results (Fig. 1).
- 47% frequently used strategies like tactile materials and sensory approaches to improve accessibility (Fig. 2).
- 60% rated resources for vision impairment as "poor," indicating a need for better tools and support (Fig. 3).
- While 40% had specialized training, 93% were eager to adopt new techniques, prioritizing reliable, user-friendly tools with comprehensive training (Fig. 4).
- Reliability (93%), ease of use (90%), and training (73%) were top priorities for new assessments (Fig. 5).

Figure 1 Agreement on Adequacy of Standardized Assessments for Children with Visual Impairments

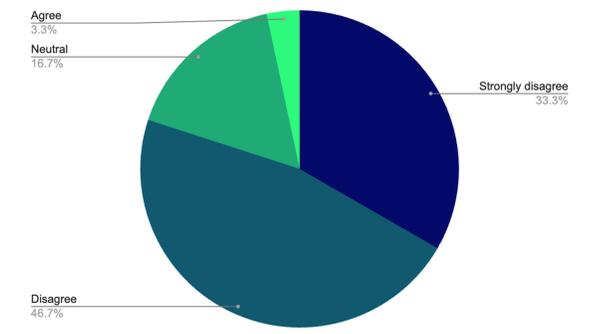


Figure 2 Common Adaptations to Assessments for Children with Visual Impairments

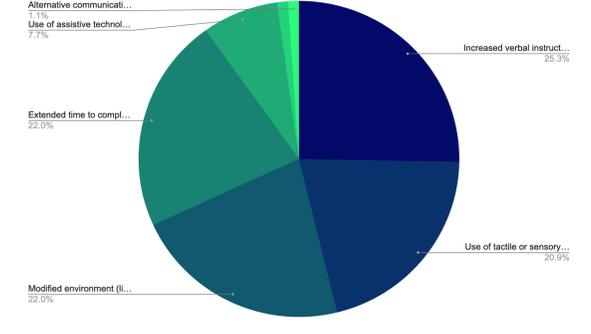


Figure 3 Resource Availability for Visual Impairment Assessments

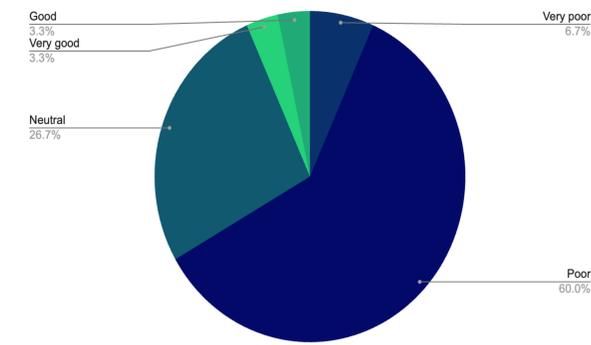


Figure 4 Interest in Future Training on Visual Impairment Assessment

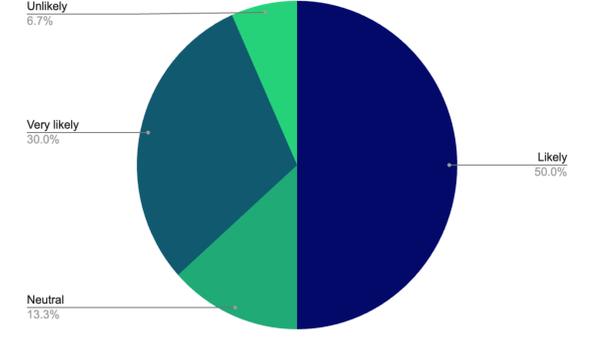
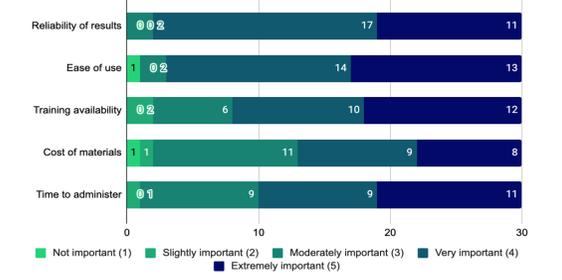


Figure 5 Key Features for Visual Impairment Assessments



Discussion

- **Challenges:** Both findings show standardized tools are inadequate for children with vision impairments, raising concerns about reliability with frequent modifications.
- **Adaptations:** Therapists use tactile, sensory, and environmental modifications, but lack of consistent protocols causes variation.
- **Focus on Outcomes:** OTs prioritize maximizing existing vision for functional tasks, focusing on participation over improving vision.
- **Parent Education:** Engaging parents in therapy ensures strategies are applied at home, supporting continuity in development and independence.

Conclusion

- **Call for Improved Resources:** The findings emphasize the urgent need for more appropriate assessment tools, standardized guidelines for adaptations, and accessible training to equip OTs in addressing the unique needs of children with vision impairments.

References

Bielinski, J. (2022, August 31). What are norm-referenced assessments and why do we use them? Illuminate Education. <https://www.illuminateed.com/blog/2022/08/what-are-norm-referenced-assessments-and-why-do-we-use-them/>

CDC. (2022, October 31). Prevalence estimates vision loss and blindness. Centers for Disease Control and Prevention. <https://www.cdc.gov/visionhealth/vehss/estimates/vision-loss-prevalence.html#:~:text=Approximately%206%20million%20Americans%20have,as%20nursing%20homes%20or%20prisons.>

Drue, J. (2022, February 16). Occupational therapists are a key to addressing the impact of vision issues in child development. Lighthouse Guild. <https://lighthouseguild.org/occupational-therapists-are-a-key-to-addressing-the-impact-of-vision-issues-in-child-development/>

Acknowledgement & Contact information

Thank you to Dr. Beth Barstow and Nicole Holley for their advocacy and knowledge.
 Contact: Lauryn Bower lfbower@uab.edu