Lighthouse unveils a pediatric visual impairment program

By Lauren Lamb

The Miami Lighthouse last week unveiled a new program, the CVI Collaborative, to deal with children diagnosed with cortical vision impairment, the leading cause of pediatric visual impairment.

Currently, across the Miami Lighthouse children’s programs, roughly 30 students are diagnosed with CVI. That number may be much larger, as it can often be difficult to receive a diagnosis.

“We’re creating the CVI Collaborative program so the children can be served,” said Virginia Jacko, president and CEO of Miami Lighthouse.

The Miami Lighthouse for the Blind and Visually Impaired just celebrated its 90th anniversary. Under its umbrella, the Miami Lighthouse Academy LLC is a school for pre-kindergarten, first and second grade students. The academy is home to both visually and non-visually impaired students. All classrooms have Florida-certified teachers of the visually impaired.

Cortical visual impairment is caused by damage to the posterior visual system, affecting how the brain perceives and processes what the eye sees, according to Miami Lighthouse’s CVI Collaborative leader, Francesca Crozier-Fitzgerald. It can be missed or misdiagnosed.

“With CVI, there has been a neurological event, an eye examination that doesn’t adequately align with the child’s visual function and behaviors, and the presence of ten unique CVI visual behaviors and characteristics” Ms. Crozier-Fitzgerald said. “All of the work that we’re implementing is based on decades of evidence-based research and implementation of Dr. Christine Roman-Lantzy,” Ms. Crozier-Fitzgerald said.

Dr. Roman-Lantzy, Ph.D, who designed the CVI Range Assessment, directs Pediatric VIEW, The Children’s Home & Lemieux Family Center in Pittsburgh whose training specialized in infant development, particularly with medically fragile, high-risk infants.

The CVI Range Assessment evaluates the impact of CVI on the child’s visual functioning, examining the 10 characteristics of CVI such as the child’s need for color, movement, and light. It examines the child’s visual latency, visual field deficits, difficulty with distance viewing, abnormal visual reflexes, and the child’s need for reduced complexity in the sensory environment and learning materials.

“All of this information informs how the child is learning and what needs to be adapted or modified for ideal learning to happen” says Ms. Crozier-Fitzgerald.

The Miami Lighthouse is collaborating with Dr. Roman-Lantzy to provide training to Miami Lighthouse teachers and guidance in better understanding students’ visual behaviors and implementing modifications in the classroom.

“Our number one goal is to make sure that these children can access their learning materials and be provided the same opportunity to learn as their peers,” Ms. Crozier-Fitzgerald said. “We begin with assessment and with this baseline, we design the appropriate interventions and instructional strategies to match their needs. These interventions can take place in the classroom and during one-on-one direct service. It’s a very dynamic, fluid, exciting learning process.”

“For example, a child with CVI will struggle with the complexity of a worksheet, with many letters, words, black and white pictures. We need to see how that child would need to receive information to understand it. Maybe we need to present the concept on an iPad or tablet, with 3D manipulatives, using a high-contrast black background, highlighting the salient features of words and pictures,” she said. “Most importantly, we would reduce the complexity, so the lesson is accessible to them.”

“We have students that start the program as infants in our Blind Babies Program,” Ms. Crozier-Fitzgerald said. “And we are seeing how with early assessment, intervention and ongoing progress monitoring, these children are demonstrating incredible developments. Thanks to research in visual neuroplasticity we know that this is not by chance, their improved visual functioning is based on science!”