



Susan Daniel, OD, is the president of the Neuro-Optometric Rehabilitation Association (NORA). Daniel is in private practice with her husband, Christopher Davis, OD, in Carlsbad, CA. She also serves as a consultant for the North Coastal Consortium for Special Education and the Tri-City Medical Center Acute Rehabilitation Services in the visual rehabilitation treatment for brain-injured patients and stroke victims.

Jeffrey Eisenberg: Can you describe the Neuro-Optometric Rehabilitation Association, International, and explain how it has evolved in these last 27 years?

Susan Daniel, OD: NORA is an interdisciplinary group of professionals dedicated to providing patients who have physical or cognitive disabilities as a result of an acquired brain injury with a complete ocular health evaluation and optimum visual rehabilitation education and services to improve their quality of life.

NORA's origin can be traced back to 1990, when a small group of optometrists met in Chicago to share their experiences in diagnosing and treating patients with neurological/cognitive injuries and disabilities.

Over the years, our mission has focused on advancing public and professional knowledge and understanding of neuro-optometric care and encouraging an interdisciplinary team approach among all professionals who provide rehabilitative services to individuals who have suffered a traumatic brain injury (TBI).

JE: Can you further explain the concept of neuro-optometric rehabilitation?

SD: Neuro-optometric rehabilitation is an individualized treatment regimen for patients with visual deficits as a direct result of physical disabilities, TBI and other neurological insults. In addition to visual issues, a neuro-optometric rehabilitation optometrist examines other subtle factors involved in the complex visual process, such as posture, spatial awareness, visual memory and motor output—all areas that can have wide-ranging effects on daily activities and quality of life.

Clinical experience and research studies have documented the improved performance of patients who have completed a vision rehabilitation program.

JE: Besides optometrists, what other types of professionals are part of NORA, and how do the professions work together to care for patients?

SD: An interdisciplinary, integrated team approach can play a vital role in the rehabilitation of patients with concussions, stroke or other neurological deficits. Neuro-optometric rehabilitation optometrists regularly work with physical and occupational therapists, vision therapists, speech-language pathologists, physical medicine and rehab physicians, neurologists, ophthalmologists and others involved in treating individuals with physical disabilities or TBI to ensure patients get the care they need.

JE: How great a need is there for neuro-optometric rehabilitation?

SD: An estimated 1.7 million people in the United States sustain a TBI each year. About 75% of them are the result of concussions or other forms of mild TBI. Studies show that at least 50% of patients with TBI suffer from visual dysfunctions, with one such study finding a 90% incidence of post-trauma visual complications. About two-thirds of stroke survivors have visual impairment that typically relates to diminished central or peripheral vision, eye movement abnormalities or visual perceptual defects.

JE: How can ODs develop a specialty in neuro-optometric rehabilitation?

SD: Optometrists skilled in neuro-optometric rehabilitation therapy have pursued extended education and training. NORA's clinical skills/fellowship program was developed to provide professionals with the highest level of clinical abilities and scientific knowledge in the field of neuro-optometric rehabilitation. This process leads to a fellowship within NORA. Information about the program and its requirements can be found on our website at NORAVisionRehab.org. The NORA website also features information about brain injuries and vision for patients and caregivers as well as ODs and other health professionals, including downloadable educational resources.

For the complete interview, go to OptometricOffice.com.