Limited Research and Education on Special Populations in Optometry and Ophthalmology

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Optometrists have the responsibility of providing primary and specialized eye and vision care to a wide variety of individuals. Most optometrists perform examinations on patients of variable backgrounds, ages and needs. One minute we may see an 80-year old woman on Medicare with advanced glaucoma and the very next patient might be a 3-year old with an accommodative esotropia. It is our responsibility to seek out the knowledge, clinical skills and diagnostic equipment necessary to treat these patients or refer to another practitioner for appropriate care. One patient population that has in some ways been greatly ignored by many eye care practitioners are those with special needs. Although the health care professionals’ attitude towards special needs patients can be positively affected through education and exposure to special populations, this may or may not occur within the doctors’ initial training or as post-graduates.

Special needs patients include those individuals with genetic anomalies, traumatic brain injury, Autistic Spectrum Disorder, mental illness, learning disabilities, and developmental delays. These patients often have oculo-visual, behavioral and vision information processing abnormalities that require a specific set of examination procedures to accurately diagnose and treat any problems present. We should have a specific diagnostic approach when these individuals enter our examination room.

Approximately 1 of every 166 children born in the United States will develop an Autistic Spectrum Disorder. Down syndrome effects 1 of every 1000 children born to mothers 30 years of age or older. Individuals with Fragile X syndrome are frequently encountered as well. Learning disabilities are currently estimated to be noted in 4.6 million children while 17% of individuals have some form of developmental delay. With the average optometrist seeing between 3 and 4 thousand patients a year, chances are they will encounter multiple patients falling into each of these categories. Yet with these increasing numbers of special needs patients, there appears to have been little effort made in recent years to educate post-graduate optometrists on the diagnosis and treatment of these individuals.

A recent literature search of optometric and ophthalmologic journals over the past 10 years noted that a total of 53 articles have been published concerning Down syndrome while 15 articles were found on Autism. Only 6 journal articles discussed learning disabilities and 4 reviewed developmental delay. After noting the lack of information about special population patients available to eye care professionals in the literature, a review of lecture topics at three major national conferences was performed. From 2001-2007, the national meeting of the American Academy of Optometry had 1014 lecture presentations. Of these three (.3%) dealt with special populations. In the same time frame, the American Optometric Association had 1136 lectures at the national conference with only 1 (.09%) discussing special populations. Finally, the College of Optometrists in Vision Development had 48 lectures in the same time frame and 8 (16%) dealt with special populations. It appears obvious that our national organizations should consider supporting an increased number of papers concerning special populations and lectures/presentations given about these special needs patients.

With the millions of special needs individuals in our country, it would seem only appropriate for optometry to take a closer look at how we can meet the oculo-visual needs of these populations. We should assess how well we are meeting the educational needs of our profession when it comes to determining the best approach for...
the diagnosis and treatment of these individuals. This also means that the individual optometrist that works with these populations should publish research, clinical case studies, editorials and reviews concerning these patients with special needs. Our professional optometric organizations should offer multiple venues for the publication of articles and the presentation of research and continuing education on the subject of special needs patients.

If the aforementioned prevalence for each of the above diagnostic syndromes and categories are true, then for every 1000 patients seen by an optometrist, a minimum of 1 Down syndrome patient, 6 Autistic patients, 170 patients with learning disabilities, and 200 patients with some form of developmental delay should be evaluated by our optometric colleagues. Using the statistics previously noted, special populations could comprise as much as 37% of some optometric practices. Yet health care professionals as a whole do not seem overly concerned about addressing the needs of these individuals at this time. Of course we recognize that there are many barriers to health care in general and vision care in particular that these patients face. Only within the past 10-20 years has society as a whole increased its awareness of the needs of these individuals.

Neighborhood schools now develop individual education plans for students with special needs. The government provides financial benefits for individuals not able to adequately survive in our society because of their disability. Group homes, day care, and other organized activities are now frequently utilized to assist those with disability. Yet, health care often remains elusive for most, with vision care only an after thought.

While we, as primary eye and vision care providers, may be lagging behind, we should make a concerted effort to address the lack of knowledge in this area and find ways to better serve the individuals comprising these special populations. For this to occur doctors must take the time to investigate expected findings for individuals falling into each subset of these special needs patients. We must also share with colleagues our successes and failures with new and innovative treatments for problems encountered by these individuals. Above all we should be willing to take the time to publish information from either studies or case reports dealing with special needs patients that increase the knowledge base of the profession. By making a considerable effort to improve our knowledge base in this area, we will not only better serve these patients, but also society as a whole.

References