GUEST EDITORIAL

INFANT VISION
OPTOMETRY'S NEW FRONTIER

By W. David Sullins, Jr., O.D.

The first state optometric statute passed in 1901 in Minnesota and the last statutes were signed into law in Texas in 1921 and the District of Columbia in 1924. A review of those early statutes reveals most optometry laws were written from an evolving perspective. They exhibit a phenomenon I call "defensive legislation:" they sought to both firmly establish a learned profession and preempt encroachment from the elements from whence it came, such as, the jewelry story and opticianry.

Present optometric statutes are less restrictive, less protective, more encompassing, resulting in a significantly increased scope of practice and responsibility. The progress in attaining today's scope of practice took the better part of a century. But doing it in that amount of time assured that the schools and colleges of optometry could provide the necessary education that preceded a planned and logically based sequence of legislative actions. The result is that today, optometry has maintained its earlier roles in dispensing and refraction, while expanding into contact lenses, low vision, vision therapy, and, more recently, the use of diagnostic and therapeutic pharmaceutical agents.

However, during the first half of the twentieth century optometry defined itself as a drugless profession that was able to rehabilitate vision problems of healthy eyes. In terms of ocular disease, we were "detection and referral" practitioners to ostensibly the adolescent, young adult, adult and senior patient populations. Indeed, there was a time when a number of states statutorily forbade optometry from providing care for infants and children. Those reasons varied from no formal training in this area and the inability to use cycloplegic pharmaceutical agents to the restrictive politics of state medical societies. The rationale was that optometrists were refracting practitioners and since medicine and ophthalmology generally did not acknowledge vision problems prior to puberty, the pediatricians could take care of all other medical eye problems of infants, toddlers and children directly or in consultation with ophthalmologists.

Optometry's first formal recognition of its obligation and responsibility to provide eye and vision care for children was 1953 by virtue of a resolution of The American Optometric Association's House of Delegates. Then, in 1992 this body recognized the same responsibility to the infant patient by stating that infants should be examined by an optometrist within the first six months of life.

Interestingly, medicine's first formal acknowledgment occurred when the American Academy of Ophthalmology (AAO) resolved that they would assume the responsibility of the infant and child in a 1991 joint statement by the AAO and The American Academy of Pediatric Ophthalmology and Strabismus. The statement was revised and reaffirmed in 1996 and again in 1997. In 1998, the foundation of the AAO created a National Children's Eye Care Program. Of further interest, the American Academy of Pediatrics issued their first formal acknowledgment of responsibility in July 1996, including eye and vision problems of infants, children and young adults.

Today, the professions that are ostensibly responsible for the eye and vision care of infants are family practice physicians, pediatricians, general ophthalmologists, pediatric ophthalmologists and optometrists. However, I submit that there is inadequate eye and vision care for America's infants. Everyone assumes that someone else will take care of it.

Medical residency education has de-emphasized training for infant eye care in most family practice and internal medicine programs. Residency training in pediatrics devotes little time to ophthalmology and virtually no time to vision dysfunctions. Resident training in ophthalmology has been pushed more

EDITORIAL continued on page 100

and more toward high tech procedures. Consequently there has been a de-emphasis in the education and training relating to the basic eye and vision problems in adults and almost no training in these areas for neonates, infants and children. Fellowship training for pediatric ophthalmologists is quite rare today. When looking for definitive, well distributed and cost available eye and vision care for America's infants, medicine does not have a suitable practitioner group or acceptable alternative. It has to be said that in the neonate and infant populations there is significantly more to eye and vision care than using the ophthalmoscope for a red reflex and assuring that all four puncti are patent. We must recognize that there is more to treating these groups than punctal massage, Neosporin and unnecessary expensive consultations to pediatric ophthalmologists.

Our colleagues in medicine and in particular ophthalmology, have abdicated their responsibility to Lion's Club screenings, photo-refractive screenings and lay persons who have little or no training in how and what to look for in infant eye and vision care. This, in spite of the fact that published reports in the journal, *Pediatrics* (Vol. 89, No. 5, May 1992), indicate that half of all amblyopes were not diagnosed until after the age of five and that two-thirds of the three year olds were not screened at all.

Similarly, optometry has not provided care for neonates and infants in any significant numbers. Most likely, this is a result of the absence of formal training in the professional curriculum. There are, however, a few residencies that prepare optometrists to care for the eye and vision problems of these youngsters. More importantly, I believe that optometrists are not located in facilities where we typically find neonate and infant patients. Consequently, as the profession continues to mature and to move into the mainstream of the healthcare delivery, optometry must increasingly develop a presence at hospitals and birthing centers.

In order to be politically correct and perceived as a concerned profession, most national health care professional organizations have adopted resolutions, established policies, and set guidelines for the eye and vision care of the infant patient. I am afraid that this is mostly "lip service" and serves only to indict all the appropriate professions from not providing care for America's youngest citizens in a more proactive and serious fashion. The resolutions say one thing, and practitioner actions do another.

Who provides the eye and vision care of America's neonates, infants, toddlers and children today? There are PTA screenings by volunteer parents or teachers, Lions Club screenings by lay personnel with little or no training, photo-refractive screening by laymen with little or no training. There are a relative handful of family practice physicians, pediatricians, ophthalmologists, pediatric ophthalmologists and finally optometrists. However, keep in mind that by and large the optometrists are providing care for these youngest patients only if they have successfully been able to disengage an existing relationship between the parents of the infant patient and the current pediatrician and the ophthalmologist. I propose that if optometry does not position itself to be the major provider, optimal eye and vision care will be denied to America's neonates, infants, and young children. Optometry must develop a mechanism to educate pediatricians and family practice physicians regarding its ability to provide vision care to these groups.

A review of some of the literature regarding the epidemiology of eye and vision problems in infants and children is somewhat staggering.[1] It is my hope that this brief review will give you some feeling as to the magnitude of the enormous difficulties that we are overlooking in not evaluating the infant in the first and second year of life. In 1990, the census found there were 3.2 million infants in their first year of life within the United States. Strabismus is perhaps the most common infantile eye and vision problem, affecting 1-2% of that infant patient population. Accommodative esotropia affects 2-3% of the population by 2-3 years of age. It is estimated that six million Americans suffer vision loss due to amblyopia. There are 75,000 three-year-olds developing amblyopia each year. Amblyopia is responsible for loss of vision in more people under 45 years of age than all other ocular diseases and trauma combined. A review of mortality incidence, i.e., retinaoblastoma, reveals that while these problems are not present in any significant numbers, it would be quite shocking if it were your friend, loved one or family member.

By most sources, vision disorders are the fourth most prevalent disability in the United States. Vision disorders are the leading cause of handicapping children in learning and school functioning.

Significant refractive errors comprise the balance of eye and vision problems in infants. Four percent of the infant population is myopic and 20% of are hyperopic. Amblyopia and strabismus usually result from these undetected refractive conditions. There are volumes of research that indicate anisometropia and astigmatism are variable throughout infancy and need to be carefully monitored to assure that emmetropization does occur.

It is obvious from these figures and our understanding of what is occurring is that no profession is assuming the role of "championing the solving of eye and vision care problems" in the American infant. We must ask ourselves the question, who is the best qualified, most available and historically, the friend of the American family's eye and vision care. I propose that the answer is optometry.

I can understand the trepidation of some in examining an infant for the first time without having contemporary training in this somewhat neglected area. However, let me pose the question, who is the most qualified doctor to examine vision problems in infants? Is it the older experienced optometrist or the most contemporary-trained pediatrician? I am convinced it is the optometrist, even without any additional pediatric training. Ophthalmoscopy, retinoscopy and optometry's understanding of the visual process makes optometry the clear choice.

Optometrists have not been significantly involved in infant eye and vision care and we have not been involved as much as we should have been in children's eye and vision care! Optometry

cannot tout that we are a primary eye care provider, put resolutions on infant vision on the books and continue to neglect the infant population and be minimally involved in children's eye care!

I am convinced that the American Foundation for Vision Awareness (AFVA) adoption of Operation Bright Start (OBS) is the best possible and most efficient way for optometry to be involved and "take the lead" in PROVIDING and COORDINATING the eye and vision care of America's infant. It is logical for the optometrist to assume the role of educating the parents of infants, eliminating amblyopia and severely reducing the incidence of strabismus. Operation Bright Start must become the "March of Dimes for infant eye care." In essence, A NEW CONCEPT IN EYE CARE FOR THE NEW MILLENNIUM. AFVA has allowed and assisted Tennessee (The Volunteer State) in establishing the prototype of a national eye care program for America's infants.

Operation Bright Start consists of volunteer doctors of optometry across the State of Tennessee agreeing to take care of the eyes and vision of infants in their first year of life at no charge for their services. It is the pledge of Operation Bright Start-Tennessee, to provide a doctor of optometry within 30 minutes of every infant in the state of Tennessee. Operation Bright Start-Tennessee will "champion the solving of eye and vision problems" of Tennessee's infants.

It is clinically the right thing to do! It does not require a primary care physician referral. It does not require insurance prior approval. It does not substitute for a pediatric well-baby examination. It does not replace the need for immunization. It is the best time to introduce and familiarize the infant patient's parents and family about eye and vision care. It is the best time to intervene. It is another health care event to be added to immunizations and well-baby examinations. It is a way to stop amblyopia. It will reduce the incidence of strabismus. It will teach families about the value of eye and vision care. It might well be "the best single health event " in the infant's neonatal development.

Dear Colleagues:

The guest editorial by David Sullins, O.D. in this issue is a report to the profession regarding optometry's responsibility in caring for the ocular and visual development of our nation's infants. The American Foundation for Vision Awareness and the Operation Bright Start (OBS) National Advisory Board have teamed to bring this project to the nation. The goal is to provide an eye and vision assessment during the first year of life. Think of the opportunities to augment a baby's development when eye and vision assessments begin in the first year of life.

The OEP Board of Directors encourages your participation in OBS as a provider of primary eye and vision care services. Guidelines for this project have been written by a respected group of optometrists from across the country. Primary care optometrists agree to provide services without charge during the first year of life.

As this project unfolds, optometric consultants will be needed. These optometrists should have significant experience and knowledge in the evaluating and managing the ocular and visual conditions of infants. Those who do have this experience are encouraged to participate as consultants. They will receive referrals from the primary care volunteers when they determine that more detailed diagnosis and management is appropriate. Consultants will be able to charge for their services but will participate only at the secondary/tertiary care level in this project.

The OEP Board of Directors encourages you to visit the OBS website at www.operationbrightstart.com. You may also receive information by calling 1-877-OBS-EYES. If you can participate in this project, please sign up on the website or call the toll free number. An OBS project information kit will be mailed to you. The primary requirement is that you provide specific information of every OBS patient you examine.

You may also contact Mike Smith, AFVA Executive Director, at 1-800-927-2382 or Dr. Steele at 901-722-3284.

Glen T. Steele, O.D. FCOVD

President, OEP

Operation Bright Start is alive and well in the state of Tennessee. I am extremely proud of our Tennessee doctors, our schools' participation, our families who are showing interest and our colleagues in medicine. Thanks to all of them, Operation Bright Start is working for Tennessee's infants. I invite you to log on to the Operation Bright Start website by going to:

www.operationbrightstart.com.

Additionally, I invite you to call 877-OBS-EYES to find out more information about Operation Bright Start-Tennessee. I remind you that this is a pilot project in Tennessee that can and will grow into a national project. OBS is the foundation upon which to build a national program to provide primary eye and vision care for America's infants and children.

Reference

1. Ciner EB, Schmidt PP, Orel-Bixler D, Dobson V et al. Vision screening of preschool children: evaluating the past, looking to the future. Optom Vis Sci 1998; 75(8):571-584.

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