



VISION THERAPY in Optometric Education

The Future of


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ABSTRACT

With the expanding scope of optometric practice, optometric curricula have generally de-emphasized the area of vision therapy. Optometric practice laws, as well as optometry's professional and ethical responsibilities to provide care for patients presenting with binocular vision and visual perceptual anomalies mandate that the schools and colleges of optometry provide educational programs for both entry and secondary level competence. Residency programs are the most efficacious method of providing secondary care education in the area of vision therapy.

KEY WORDS

vision therapy, pediatric, binocular vision, visual perception, residencies



The rapid expansion of optometric therapeutic pharmaceutical legislation across the United States has fostered concern among many optometric educators and practitioners regarding the profession's ability to maintain the more traditional aspects of optometric education and practice. A major concern is the decline in emphasis of vision therapy in optometric curricula. Some areas of the curriculum concerned with the diagnosis and management of functional binocular anomalies and visual perceptual disorders have been eliminated or compressed in an effort to address the expanding scope of optometric practice in the diagnosis and management of ocular disease.

There is a compelling rationale for optometric education to continue a curriculum in vision therapy. Although the following list is not exhaustive, we feel these facts represent some of the most important reasons.

1. The relatively high prevalence of binocular and perceptual disorders present in the general population.¹⁻⁶
2. Optometric tradition is based on the psycho-physical evaluation and enhancement of human visual performance. This fact has distinguished optometric "vision" care from other professional "eye" care.
3. Forty-three states mention orthoptics, vision therapy, or an equivalent term in their licensing laws, thus establishing a public trust. Conse-

quently, the doctor of optometry has a professional and legal obligation to deliver competent care, including the treatment option of vision therapy.

4. The American Optometric Association, representing organized political optometry, has taken a position to support vision therapy.^{7,8}
5. The American Academy of Optometry, representing the academic and research interests of optometry, supports quality continuing education and has an established Section and Diplomate program^{9,10} in Binocular Vision and Perception.
6. The Optometric Extension Program (OEP, founded in 1928) and the College of Optometrists in Vision Development (COVD, founded in 1971) have a combined membership of over 3,000. This demonstrates a broad post-graduate interest in the area of binocular vision and perception.
7. Many third party insurers and health organizations, such as the American Public Health Association,¹¹ recognize and support vision therapy as a viable treatment option.

Based on just these facts, it is apparent that one responsibility of optometric education is to provide an academic and clinical curriculum that prepares students in the diagnosis and management of binocular and perceptual

disorders. The framework for such a curriculum was developed and adopted by the Association of Schools and Colleges of Optometry in 1987.¹² The "Curriculum Model for Oculomotor, Binocular and Visual Perception Dysfunctions" outlines 14 goals (Table 1) and suggests specific behavioral objectives which constitute a comprehensive curriculum in vision therapy.

It is becoming increasingly evident that the present four-year program militates against for such a comprehensive curriculum. However, each institution should strive to provide entry level competence to each graduate. Entry level competence should include the knowledge and skills needed to diagnose accommodative, oculomotor, binocular and visual perceptual dysfunctions. In addition, the graduate should be able to manage these conditions, either by treatment or appropriate referral. The graduate should have the clinical experience needed to diagnose and manage basic binocular anomalies of relatively high prevalence and good therapeutic prognosis, such as convergence insufficiency and accommodative dysfunctions. The entry level curriculum would insure that, within the context of full-scope optometric practice, the student receives a basic foundation of diagnostic and management skills in vision therapy.

In order to provide for the total needs of the public, optometry must ensure that education is available at the secondary care level for less prevalent and potentially more severe oculomotor, binocular and visual perceptual dysfunctions. This can be achieved by continuing education (CE) and post-graduate residency programs. The CE route is less likely to achieve the goal of advanced level competency. Most available courses are presented at a basic level and are not adequately comprehensive in scope. In addition, they do not provide the supervised clinical experience over the time period necessary to achieve an advanced level of competency.

The more realistic path for developing and maintaining a core level of secondary care providers is through optometric residency programs. A residency program provides the practitioner with an academic and clinical program expanded both in scope and depth appropriate for advanced diagnosis and management competencies in the area of vision therapy.

GOALS OUTLINED IN "CURRICULUM MODEL FOR OCULOMOTOR, BINOCULAR AND VISUAL PERCEPTUAL DYSFUNCTIONS."¹²

1. Knowledge of the basic physiology of ocular motility and accommodation.
2. Knowledge of the basic physiology of binocular vision.
3. Knowledge of the basic physiology of visual perception.
4. Knowledge of the development of perceptual-cognitive function and intersensory integration.
5. Knowledge of the epidemiology of oculomotor, binocular and visual perception dysfunction.
6. Knowledge of the public health features of oculomotor, binocular and visual perception dysfunctions.
7. Knowledge and demonstration of diagnostic methodology and analysis for oculomotor, binocular and visual perception dysfunctions.
8. Knowledge of the interactions between educational, psychological, social and physical factors and oculomotor, binocular and visual perception dysfunctions.
9. Knowledge and skill to design and implement a management plan for oculomotor, binocular and visual perception dysfunctions.
10. Knowledge of the role of environment and its modification in providing optimum performance for oculomotor, binocular and vision perception functioning.
11. Knowledge of the educational, vocational, legal, social, financial services available from community, state, regional and federal agencies for the management of oculomotor, binocular and visual perception dysfunctions.
12. Understanding the practice administration and economic concepts involved in the delivery of care for patients with oculomotor, binocular and visual perception dysfunctions.
13. Knowledge and skill needed for the development of appropriate interpersonal relationships in the care of oculomotor, binocular and visual perception dysfunction.
14. Ability to critically evaluate and contribute to the literature of ocular motility, binocular vision and vision perception.

Table 1.

The Council on Optometric Education (COE) defines a residency program as an academic post-graduate program of prescribed length, usually in an area of specialization, which is available to fully qualified practitioners. A residency program is clinical in content, and has as its goal the development of unique skills and competence in specific areas of optometric patient care. It includes a body of knowledge which cannot be effectively covered in the four-year professional program.¹³ The typical residency program is 10% didactic, 60% patient care, 10% teaching, 10% research, 5% thesis or research paper, 5% self-study.¹⁴ When all program requirements are met, the resident qualifies for a certificate of completion, which is awarded by the parent or affiliated academic institution. The COE accredits optometric residency programs

for specific time periods.¹⁵ The accrediting process assures that the residency program meets a prescribed level of quality, including admission requirements, the amount and type of educational training, curriculum, faculty, facilities, patient base and equipment.

The first one-year residency in "vision therapy" was implemented at the State University of New York, State College of Optometry (SUNY) in 1974.¹⁶ This one-year residency followed 10 years of a successful four-month summer residency in orthoptics and vision training, which is the first reported residency program at a school of optometry.¹⁷ Currently there are five accredited, institutionally affiliated, pediatric vision and vision therapy residency programs (Table 2). This provides a current total of 12 positions available to those graduates

CURRENT PEDIATRIC VISION AND VISION THERAPY RESIDENCIES

University of Alabama at Birmingham	1 position
University of Houston	1 position
Pennsylvania College of Optometry	2 positions
Southern College of Optometry	2 positions
Southern California College of Optometry	2 positions
SUNY, State College of Optometry	4 positions

Table 2.

wishing to develop beyond entry level competence.

Residency programs have additional benefits beyond the primary goal of producing high caliber optometric clinicians. They provide an excellent setting for clinical research. Many programs require a publishable research paper or clinical case report. This component both enhances the resident's ability to critically review articles and often results in contributions to the professional literature. Further, residency graduates provide an excellent pool of potential optometric educators because of their extensive academic background, intensive patient care and teaching experiences. While the number of residents who initially become faculty is encouraging, their relatively high turnover rate is of concern.¹⁸ This problem may be related to the lower initial salary level and income potential for educators compared to practitioners.

The current number of pediatric vision and vision therapy residency positions is inadequate to meet the need for qualified optometric educators, the profession's need for clinicians who are proven in terms of advanced clinical ability, and the public's need for practitioners with advanced competency in vision therapy. In 1979 there were four pediatric and vision therapy residencies providing seven positions.¹⁶ Since that time five additional positions have become available. This is indeed a modest increase when compared to the significant expansion of the Veteran's Administration (VA) and other hospital-based residency programs.¹⁹ A total of 20-25 positions is more realistic to begin to meet the optometric educational, professional and public needs for advanced vision therapy practitioners.

At present all pediatric vision and vision therapy residencies are primarily

"in-house" programs. Efforts should be made to expand the academic and clinical training of practitioners into multi-disciplinary settings. This environment would promote intra-professional communication between optometry, psychology, education, medicine and other allied health professionals. Residency programs of this type will facilitate the introduction of optometric care into educational and health centers as part of the total rehabilitation team treating on both an "in-patient" and "out-patient" basis.

SUMMARY

One of the great strengths of optometric practice has been the ability to provide care and treatment options to those patients with real and potential binocular vision and visual perceptual disorders. As the profession continues to expand into new vistas of patient care, it is incumbent upon the optometric educators and the profession at large to maintain and strengthen our ability to provide care for these patients. We must be constantly on guard to prevent the further decay of the vision therapy related curricula. To maintain optometry's strength and leadership in the diagnosis and management of binocular vision and visual perceptual disorders, optometric education must do two things: establish priorities of curricular elements necessary to ensure entry level competence in vision therapy for all graduates, and increase the number of residency positions. These measures will ensure the continuation and growth of this uniquely optometric area of visual care.

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