THE EYE AND LEARNING DISABILITIES

The problem of learning disability has become a matter of increasing public concern, which has led to exploitation by some practitioners of the normal concern of parents for the welfare of their children. A child's inability to read with understanding as a result of defects in processing visual symbols, a condition which has been called dyslexia, is a major obstacle to school learning and has far-reaching social and economic implications. The significance and magnitude of the problem have generated a proliferation of diagnostic and remedial procedures, many of which imply a relationship between visual function and learning.1

The eye and visual training in the treatment of dyslexia and associated learning disabilities have recently been reviewed1 with the following conclusions by the American Academy of Pediatrics, the American Academy of Ophthalmology and Otolaryngology, and the American Association of Ophthalmology:

1. Learning disability and dyslexia, as well as other forms of school underachievement, require a multi-disciplinary approach from medicine, education, and psychology in diagnosis and treatment. Eye care should never be instituted in isolation when a patient has a reading problem. Children with learning disabilities have the same incidence of ocular abnormalities, e.g., refractive errors and muscle imbalance, as children who are normal achievers and reading at grade level.2-4 These abnormalities should be corrected.

2. Since clues in word recognition are transmitted through the eyes to the brain, it has become common practice to attribute reading difficulties to subtle ocular abnormalities presumed to cause faulty visual perception. Studies have shown that there is no peripheral eye defect which produces dyslexia and associated learning disabilities.3-5 Eye defects do not cause reversals of letters, words, or numbers.

3. No known scientific evidence supports claims for improving the academic abilities of learning-disabled or dyslexic children with treatment based solely on:
   (a) visual training (muscle exercises, ocular pursuit, glasses),7-12
   (b) neurologic organizational training (laterality training, balance board, perceptual training).3-14

Furthermore, such training has frequently resulted in unwarranted expense and has delayed proper instruction for the child.

4. Excluding correctable ocular defects, glasses have no value in the specific treatment of dyslexia or other learning problems. In fact, unnecessarily prescribed glasses may create a false sense of security that may delay needed treatment.

5. The teaching of learning-disabled and dyslexic children is a problem of educational science. No one approach is applicable to all children. A change in any variable may result in increased motivation of the child and reduced frustration. Parents should be made aware that mental level and psychological implications are contributing factors to a child's success or failure. Ophthalmologists and other medical specialists should offer their knowledge. This may consist of the identification of specific defects, or simply early recognition. The precursors of learning disabilities can often be detected by 3 years of age. Since remediation may be more effective during the early years,15 it is important for the physi-
Medical specialists may assist in bringing the child's potential to the best level, but the actual remedial educational procedures remain the responsibility of educators.

REFERENCES

1. Optometric Extension Program, Duncan, Oklahoma, L. Manas.
15. Children's Hospital Developmental and Evaluation Clinic, Denver, Colorado: J. McMahon.
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